

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE J		PAGE OF PAGES 1 13	
2. AMENDMENT/MODIFICATION NO. 0002		3. EFFECTIVE DATE 16-May-2002		4. REQUISITION/PURCHASE REQ. NO. W16ROE-2046-6819		5. PROJECT NO.(If applicable)	
6. ISSUED BY USA ENGINEER DISTRICT, NEW YORK ATTN: CENAN-CT ROOM 1843 26 FEDERAL PLAZA (DACA51) NEW YORK NY 10278-0090		CODE DACA51		7. ADMINISTERED BY (If other than item 6) See Item 6		CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)				<input checked="" type="checkbox"/> 9A. AMENDMENT OF SOLICITATION NO. DACA51-02-R-0008			
				<input checked="" type="checkbox"/> 9B. DATED (SEE ITEM 11) 16-Apr-2002			
				10A. MOD. OF CONTRACT/ORDER NO.			
				10B. DATED (SEE ITEM 13)			
CODE		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input checked="" type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning <u> 1 </u> copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A.THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B.THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
C.THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D.OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The purpose of this amendment 0002 to solicitation DACA51-02-R-0008, is to provide a summary of the questions and answers at the pre-proposal conference of 10 May 2002, to add Appendix B to section 00901, and to provide addendums to the specifications. Tto provide updated wage rates. This amendment additionally requires that the price proposals (as listed in the orginally solicitation) be submitted in one original and five copies. Offeror must acknowledge receipt of this amendment by the date specified in the solicitation (or as amended) by one of the following methods: By signing Block 15 below, by separate letter, or by telegram. FAILURE TO ACKNOWLEDGE AMENDMENTS BY THE DATE AND TIME SPECIFIED MAY RESULT IN REJECTION OF YOUR BID IN ACCORDANCE WITH THE LATE BID, LATE MODIFICATIONS OF BIDS, OR LATE WITHDRAWAL OF BIDS (FAR 14.304). All other terms and conditions remain the same.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
_____ (Signature of person authorized to sign)				BY _____ (Signature of Contracting Officer)		17-May-2002	

Changes in Section SF 30

AMENDMENT NO. 2
AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY
May 15, 2002
U. S. ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT
DACA51-02-R-0008

GENERAL NOTE: .CAL FILES ARE THE OFFICIAL CONTRACT DOCUMENTS. .DGN FILES ARE PROVIDED TO ASSIST THE CONTRACTOR IN PREPARING THEIR PROPOSAL. WHEN MAKING CHANGES TO A .DGN FILE PLEASE IDENTIFY THE CHANGED AREA BY CLOUDING IT ON THE AREA THAT HAS CHANGED ON THE PLAN.

GENERAL NOTE: QUESTIONS AND ANSWERS DISCUSSED AT THE PRE-PROPOSAL CONFERENCE OF MAY 10, 2002 AND THOSE QUESTIONS SENT IN TO THE ARMY CORPS OF ENGINEERS ARE INCLUDE FOR INFORMATION ONLY, ON WEBSITE <http://www.nan.usace.army.mil>. FOR CD-ROM SUBSCRIBERS, IT WILL BE ON THE CD-ROM WITH THIS AMENDMENT.

PROJECT SPECIFICATIONS

1. SECTION 00800 COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK:
Revise (iii) as follows:

“Complete the entire work ready for use not later than 800 calendar days after the date the contractor receives the administrative notice to proceed, except in case the Contracting Officer determines that seeding is not feasible during the construction period, the Contractor shall accomplish such seeding in the first planting period following the contract completion date. This action will not operate to extend the performance time for the balance of the work. The time stated for completion shall include final cleanup of the premises.”

2. ADD ATTACHED SPECIFICATION SECTION 00901 - APPENDIX B - RFP SUSTAINABLE DESIGN RATING

Rating tool available at: www.hqda.mil/acsimweb/fb/linksSSD.htm

3. SECTION 00110 - paragraph 3.4 change paragraph to read as follows:

“ Offeror shall submit concept (35%) design drawings and narratives. The concept design submittal shall meet the requirements below, as well as the requirements of Section II for 35% design of the New York Corps of Engineers Manual of Standard procedures.”

4. SECTION 00110 - add following subparagraph as 3.5.4:

3.5.4 Provide detailed list and submit resumes of the key personnel proposed for this project that will perform the following functions: construction engineers, project engineers, quality control personnel, superintendents, foremen, and safety officers. Any substitutions in key personnel after award shall require Contracting Officer approval. Information provided should consider and include the following:

- 1) Full name.
- 2) Years of construction experience.
- 3) Professional backgrounds and education.

- 4) Professional and contractor's licenses.
- 5) Length of service with your organization.
- 6) Other companies employed by in the past including time frames.
- 7) Project related experience including time frames and brief project descriptions, including any design-build experience.

5. SECTION 00110 - SUBMISSION REQUIREMENTS AND INSTRUCTIONS

Page 3, article **“3.0 VOLUME I - TECHNICAL PROPOSAL”**

In paragraph 3.1, change the 4th sentence to read:

“All drawings for the proposal CAN be in a 594 mm x 841 mm (24” x 36”) format or the same format as .DGN files provided.

In paragraph 3.1, change the 5th sentence to read:

“Provide 5 sets of half-size bound drawings and one (1) full-size set and 6 copies of written material, catalog cuts and other technical data.”

Page 5, subparagraph 3.4.1.5, change “Scale 1:50 or 1:00.” to read “Scale 1:50 or 1:100.”

6. SECTION 01010 - DESIGN REQUIREMENTS – Make the following changes:

- a. Page 3, add article **“1.4 VEHICLE TYPES”** to read:

1.4 Vehicle Types. Following is a list of vehicles that will be maintained at this facility.

M998 HMMWV
M1025 ARMT CARR
M966
5 TON M900 SERIES
M936 WRK
M984A1 HEMTT RECOVERY TRUCK
M985 HEMTT CARGO TRUCK
M978 HEMTT FUEL SERVICING TRUCK
M996 AND 2L
M997 AMB 4L
M1078 LMTV
M1085 MTV

Page 3, add article **“1.5 Number of Personnel”** to read:

1.5 Number of Personnel: Following is a list of number of people that may be using this facility.

<u>Unit</u>	<u>Administrative</u>	<u>Mechanics</u>
HHC	23	15
1/10	9	8
2/10	10	8
3/17	16	8
C/10	30	12

OCCUPANT LOADS WILL BE DETERMINED BY MAXIMUM ALLOWED BY AREA AS IDENTIFIED IN THIS RFP.

b. Page 4, article **"2.4 METRIC DESIGN"**

In the first sentence, change "soft" to "hard".

c. Page 6, article **"3.1 TECHNICAL CRITERIA AND STANDARDS"**

Delete paragraph 3.1.2 in its entirety.

d. Page 7, article **"3.6 SITE EARTHWORK"**

In subparagraph 3.6.1, "Buried Construction Debris", change the second sentence to read:

"Material shall be removed to a minimum depth of 1800 mm below finished grade, transported, and disposed of in a designated waste site as shown on drawings."

e. Page 8, article **"3.9 GRADING"**

In table under subparagraph 3.9.3.1, change "130" to read "136" for HHC; 3-5 parking spaces required.

f. Page 10, article **"3.10 PAVEMENT DESIGN"**

Add the following paragraph at the end of 3.10.2 to read:

"At Contractor's option, paving of perimeter road can be roller compacted concrete as specified in paragraph PAVEMENT DESIGN."

g. Page 11, article **"3.11 STORM RUNOFF AND DRAINAGE"**

In paragraph 3.11.2, delete the second paragraph in its entirety and insert the following in its place:

"Storm drainage system shall be designed to handle runoff draining from future development west of County Route 29. The design storm runoff from west side of County Route 29 is 1.52 m³/s (54 cfs). The point of discharge will be on the east side of County Route 29 at the intersection of County Route 29 and main entrance to VMF."

In paragraph 3.11.2, in the third paragraph, change "five" to read "give".

Add the following paragraph at the end of 3.11.2 to read:

"The design of the storm drainage system shall include riprap erosion control material at all points of concentrated storm water discharge and in drainage ditches with a slope 4.0% or greater."

h. Page 12, article **"3.12 UTILITIES"**

Add the following sentence at the end of subparagraph 3.12.4.1 to read:

"Discharge piping from the pumps shall connect to the sanitary force main outside of the pump station."

In paragraph 3.12.5, change “5700 liters (1,500 gallons)” to read “ 3800 liters (1,000 gallons)”.

- i. Page 16, add article **“3.16 GROUND WATER MONITORING WELLS”** to read:

3.16 Ground Water Monitoring Wells

3.16.1 Contractor shall close ground water monitoring wells located along south side of former sanitary landfill in area indicated on drawings. Closure shall be coordinated with Fort Drum Environmental Department and New York State Department of Environmental Conservation.

- j. Page 20, paragraph 5.1.3 **Fort Drum Architectural Theme**

In paragraph 5.1.3, delete the first and second sentences in their entirety.

- k. Page 21, article **“5.2 APPLICABLE STANDARDS”**

Delete from the list of standards the following:

Fort Drum Installation Design Guide (latest edition).

Design Compatibility Standards, Fort Drum Installation Design Guide (Mountain View)
New York.

- l. Page 24, article **“5.10 ACOUSTICAL DESIGN”**

In Table 1, delete the item “Projection Room to Other” in its entirety.

Page 24, article **“5.12 VMF BUILDING SYSTEMS, MATERIALS, AND EQUIPMENT”**

Delete the first paragraph in its entirety and insert the following in its place:

“The walls shown in the floor plans provided within this RFP depict standard design practices at Fort Drum. As shown, the general exterior wall design consists of 100 mm split-face CMU up to 1000 mm above finished floor, R-20 prefinished double-sided insulated sandwich metal panel siding, factory-assembled and installed from 1200 mm above finished floor to parapet coping above, R-20 minimum rigid insulation in CMU cavity wall, 200 mm reinforced CMU, and 16 mm Type-X gypsum board on metal stud framing.”

Delete the fourth paragraph in its entirety and insert the following in its place:

“Exterior metal siding: insulated metal siding shall be factory-assembled insulated siding panel system. The factory-insulated panels shall have a factory-fabricated, metal-covered, foam insulation sandwich panel. The system shall have flat exterior and interior profiles similar to surrounding buildings in that area.”

In paragraph 5.12.5, change the end of the second to last sentence to read:

“... in accordance with Article 5.1.3 Fort Drum Architectural Theme.”

In subparagraph 5.12.14.1 the end of the second to last sentence to read:

“... in accordance with TCA (Tile Council of America) Handbook, latest edition.”

- m. Page 37, article **“6.5 DESIGN LOADS”**

In subparagraph 6.5.7.1, add the word “underhung” after “(7.5 ton)”.

- n. Page 47, paragraph **“7.1.5 DESIGN OBJECTIVES AND PROVISIONS”**

To the end of the first paragraph add the following sentence to read:

“Provide minimum of one radiant heating zone for each wheeled vehicle bay.”

In subparagraph 7.1.5.1, delete the third paragraph in its entirety and insert the following in its place:

“The boilers shall be packaged, natural gas fired modular condensing type rated for operation up to 40 psig, with forced draft type burner. The boiler water shall be treated to reduce corrosion and scaling. Boiler burner gas train shall be AGA and FM approved. The selected boilers shall have the smallest footprint possible and shall be mounted on an anchored, reinforced concrete, housekeeping pad with a 152 mm (6 inch) clear space from the boiler to the edge of the pad. All manufacturer’s specified maintenance clearances shall be provided in the mechanical room containing the boilers. Boilers shall be specified as modular condensing type and have a minimum efficiency of 88 percent. The boiler shall be equipped with an ASME rated pressure relief valve. Boiler breechings shall be double-wall, insulated, prefabricated, as required by boiler manufacturer. Boiler combustion safety control shall be specified with LED readout. The Mechanical Room shall be provided with propane, natural gas, and carbon monoxide gas leakage monitoring and alarm control panels, to effect automatic shutdown of gas fired boilers and domestic hot water heaters, upon detection of gas leakage.”

- o. Page 58, paragraph **“7.2.3 PLUMBING SYSTEMS REQUIREMENTS”**

Add the following sentence to the end of subparagraph 7.2.3.1:

“Provide reduced pressure zone backflow preventor and water meter at each building.”

- p. Page 67, paragraph **“8.2.3 GENERAL REQUIREMENTS”**

Change the paragraph to read:

“...with the requirements of these Specifications and Drawings.”

- q. Page 68, paragraph **“8.2.4 PAD-MOUNTED EQUIPMENT”**

Add subparagraph 8.2.4.6 to read:

“8.2.4.6 HEMTT Power and Grounding. Provide power and grounding for each of the 24 HEMTT Fuel Truck parking spaces. The grounding system shall include installing a 2 foot high metal post with a 4"x6" copper grounding plate installed at each

parking space. Each copper grounding plate shall be connected to one ground rod with a #2 bare copper cable. A #2/0 bare copper grounding cable loop shall tie all 24 ground rods together. One 20A, GFCI, duplex receptacle shall be installed in a weather-proof enclosure on each metal post.

- r. Page 76, article **"8.4 WASTEWATER PUMP STATION"**

Add paragraph 8.4.9 to read:

"8.4.9 Provide 20 ampere GFIC duplex receptacle on exterior of building wall in weatherproof enclosure."

- s. Page 79, article **"9.2 OFFICE ROOMS, BMO, BMS, CO-MS"**

In subparagraph 9.2.2, 1., b., change "23.9" to read "25.6".

- t. Page 80, article **"9.3 ADMINISTRATION AREA"**

In subparagraph 9.3.3, 1., b., change "23.9" to read "25.6".

- u. Page 88, article **"9.10 BREAK AND TRAINING ROOM"**

In subparagraph 9.10.2, 1., b., change "23.9" to read "25.6".

- v. Page 95, article **"9.16 CORRIDOR"**

In subparagraph 9.16.2.1, 1., b., change "23.9" to read "25.6".

7. **SECTION 01012 - DESIGN AFTER AWARD**

Page 1, delete article "2.0 DESIGNER OF RECORD" in its entirety and insert the following in its place:

"2.0 DESIGNER OF RECORD The Contractor shall identify the Designer of Record for each area of work. One Designer of Record may be responsible for more than one area. All areas of design disciplines shall be accounted for by a Registered Architect or Licensed Engineer of Record. The Designer of Record for the water system shall be a licensed engineer in the State of New York. The Designer(s) of Record shall stamp, sign, and date all design drawings under their responsible discipline at each design submittal stage."

8. **SECTION 06100 - ROUGH CARPENTRY**

Page 5, article "2.3 INSULATION"

Delete the last sentence of paragraph 2.3, "Materials containing more than one percent asbestos will not be allowed." in its entirety.

9. **SECTION 08110 - STEEL DOORS AND FRAMES**

Page 2, article "2.3 INSULATION CORES"

Change "48" to read "0.09" in the first sentence.

10. **SECTION 13120 - STANDARD METAL BUILDING SYSTEMS**

Page 12, delete article 2.4 WALL LINERS in its entirety.

DRAWINGS

Revise the following drawings as indicated. These drawings are not being reissued at this time.

1. Drawing C-1

Change note in drawing zone B6 from "Groundwater monitoring wells this area. Past water analysis does not indicate any contamination present. Groundwater monitoring wells will be removed by Base as required" to read "Groundwater monitoring wells this area. Past water analysis does not indicate any contamination present."

2. Drawing C-3

Add note 5 to read "Provide 2400 mm high chain link fence enclosure around gas meter and regulator by Utility. Provide 900 mm minimum wide access gate. Fence shall be provided with PVC visual screening slats all around. Provide 300 mm high barbed wire barrier on top of fence and gate. Minimum enclosed area: 3000 mm x 3000 mm.

3. Drawing C-5

Revise C-10 parking lot dimensions, access drive, perimeter fence and gate in accordance with attached Exhibit C-5A.

Revise HHC-3/5 parking lot dimensions, perimeter fence, and add six parking spaces for HEMTT fuel truck in accordance with attached Exhibit C-5B.

4. Drawing C-8

In detail "Typical Hydrant and Post Indicator Valve Guard Detail," change above ground height of guard from "600 mm" to "1200 mm".

5. Drawing C-10

On Sections C, D, and E, change parking lot slope requirement from "2% - 4%" to read "2% - 3%".

6. Drawing C-40

Revise C-10 parking lot dimensions, access drive, perimeter fence, and gate in accordance with attached Exhibit C-40A.

Revise HHC-3/5 parking lot dimensions, perimeter fence, and add six parking spaces for HEMTT fuel truck in accordance with attached Exhibit C-40B.

7. Drawing A-32

In drawing zone E2, change distance to exits from "26,213 mm" to read "28,300 mm".

Add attached Exhibit A-32A and Exhibit A-32B to Drawing.

END OF AMENDMENT

Changes in Section 00800

GENERAL DECISION **NY020009** 05/03/2002 NY9

Date: May 3, 2002

General Decision Number **NY020009**

Superseded General Decision No. NY010009

State: New York

Construction Type:
BUILDING

County(ies):
JEFFERSON

BUILDING CONSTRUCTION PROJECTS (does not include residential construction consisting of single family homes and apartments up to and including 4 stories)

Modification Number Publication Date

0	03/01/2002
1	05/03/2002

COUNTY(ies):
JEFFERSON

BRNY0002H 07/01/2000

	Rates	Fringes
BRICKLAYERS	21.10	7.27
TILE SETTERS	17.59	7.42
TILE FINISHERS	15.04	6.85

ELEC0910M 04/01/2001

	Rates	Fringes
ELECTRICIANS	22.80	9.83

* SHEE0058A 05/01/2001

	Rates	Fringes
SHEET METAL WORKERS:		
Projects 5 million or less	22.35	10.71
Projects over \$5 million	23.35	10.71

SUNY1003A 05/01/1996

	Rates	Fringes
--	-------	---------

CARPENTERS	16.81	5.52
CEMENT MASONS	19.75	5.82
LABORERS	14.06	5.36
PLUMBERS	19.24	4.26
POWER EQUIPMENT OPERATORS:		
Forklift	20.64	8.70
ROOFERS	16.99	5.47

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

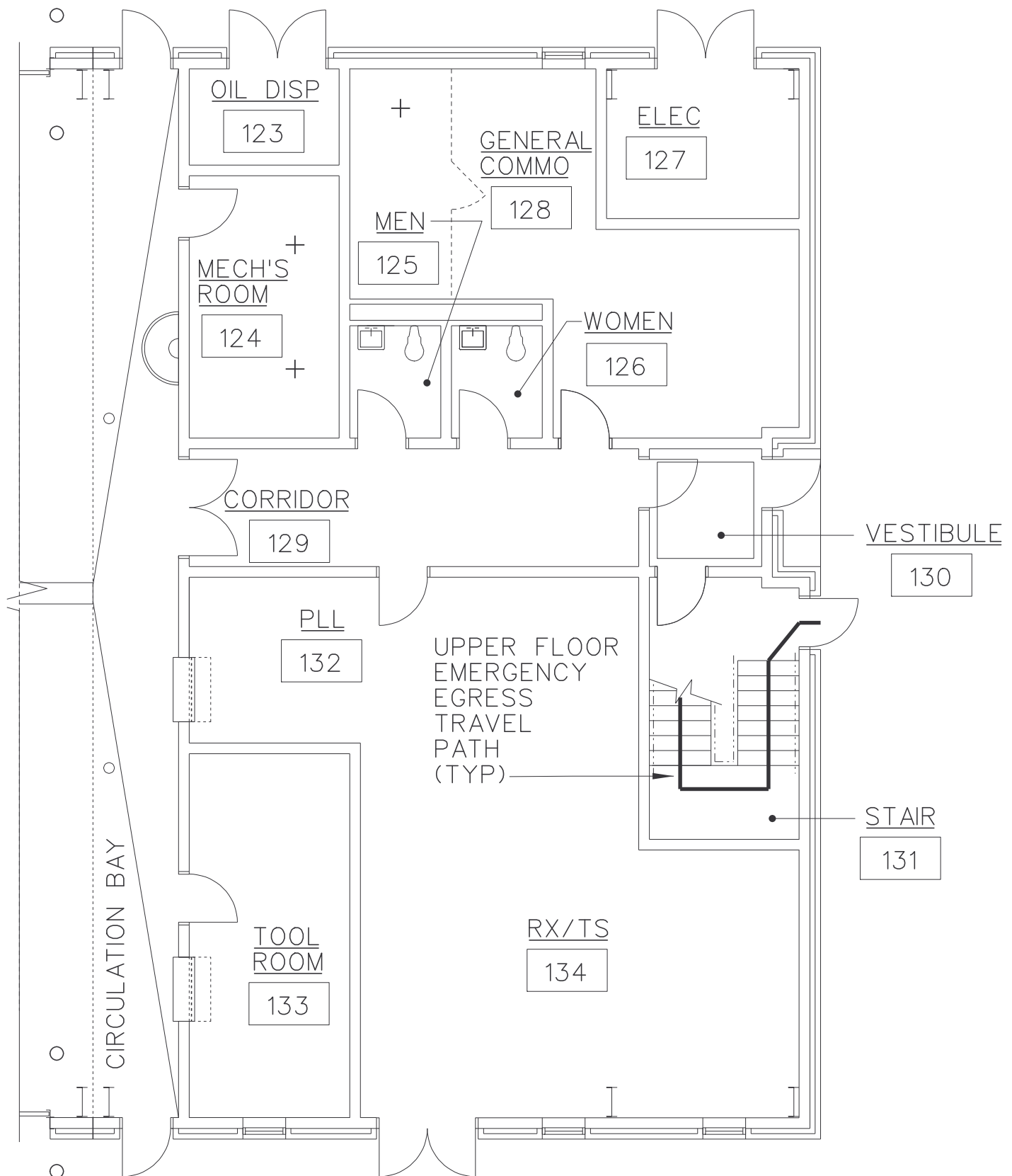
3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

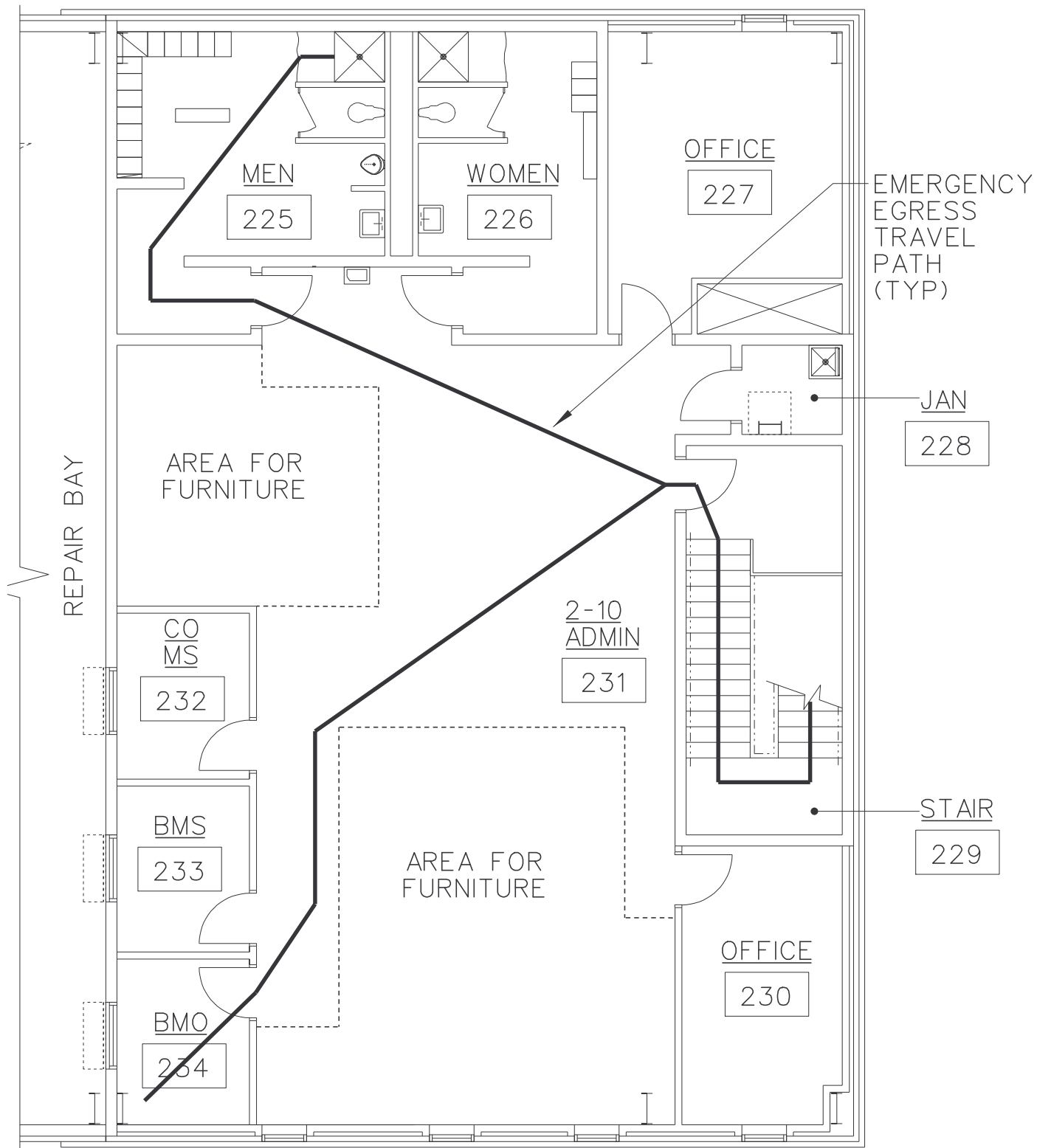
END OF GENERAL DECISION

The free form item 'Wage Rates has been deleted.



LOWER FLOOR PLAN
UNIT 2-10 ADMIN CORE
EMERGENCY EGRESS TRAVEL PATH
SCALE: 1:100

EXHIBIT A-32A



UPPER FLOOR PLAN
UNIT 2-10 ADMIN CORE
EMERGENCY EGRESS TRAVEL PATH
SCALE: 1:100

EXHIBIT A-32B

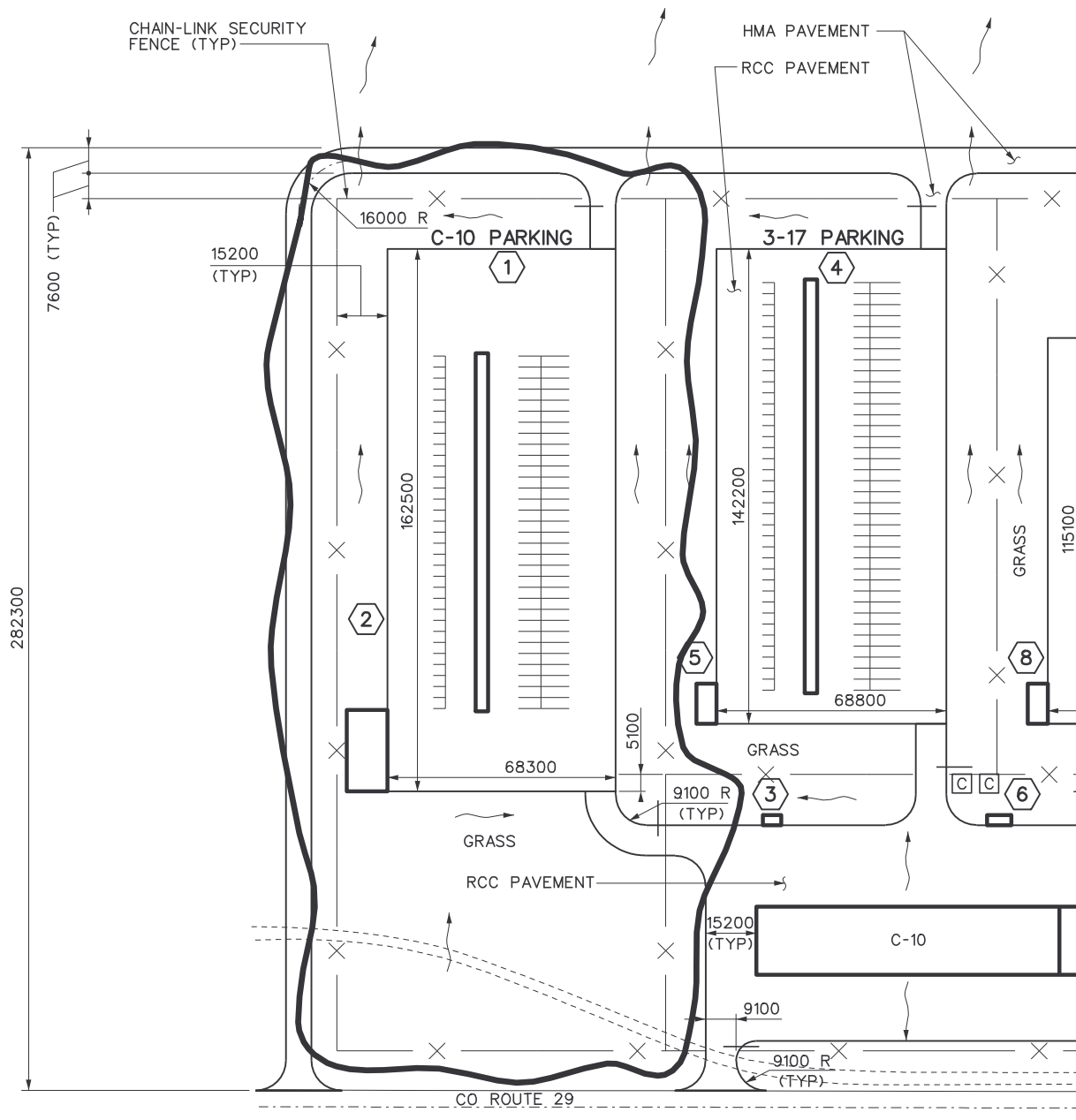
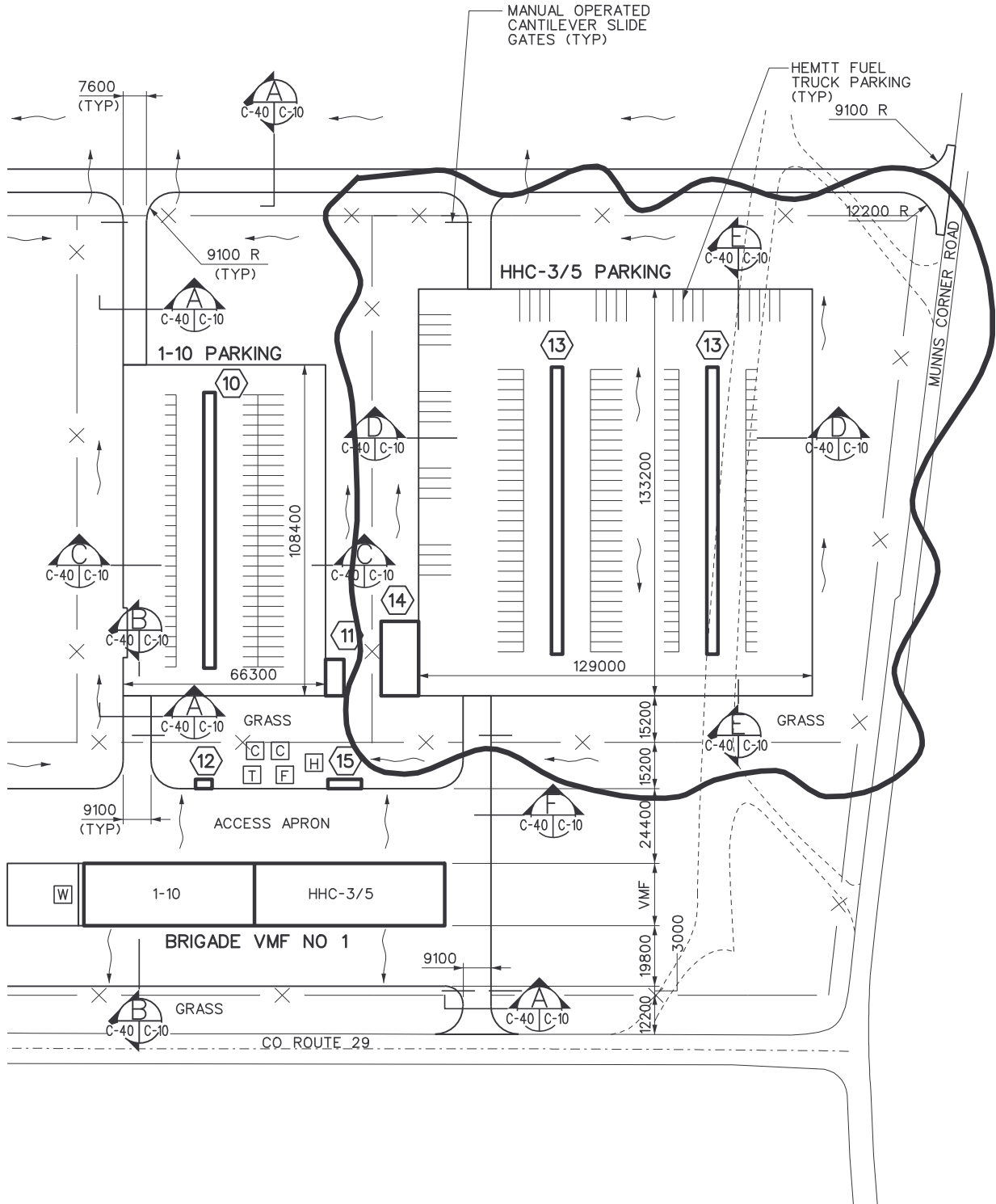


EXHIBIT C-40A



SITE LAYOUT PLAN
UNIT HHC-3/5 PARKING
 SCALE: 1:2000

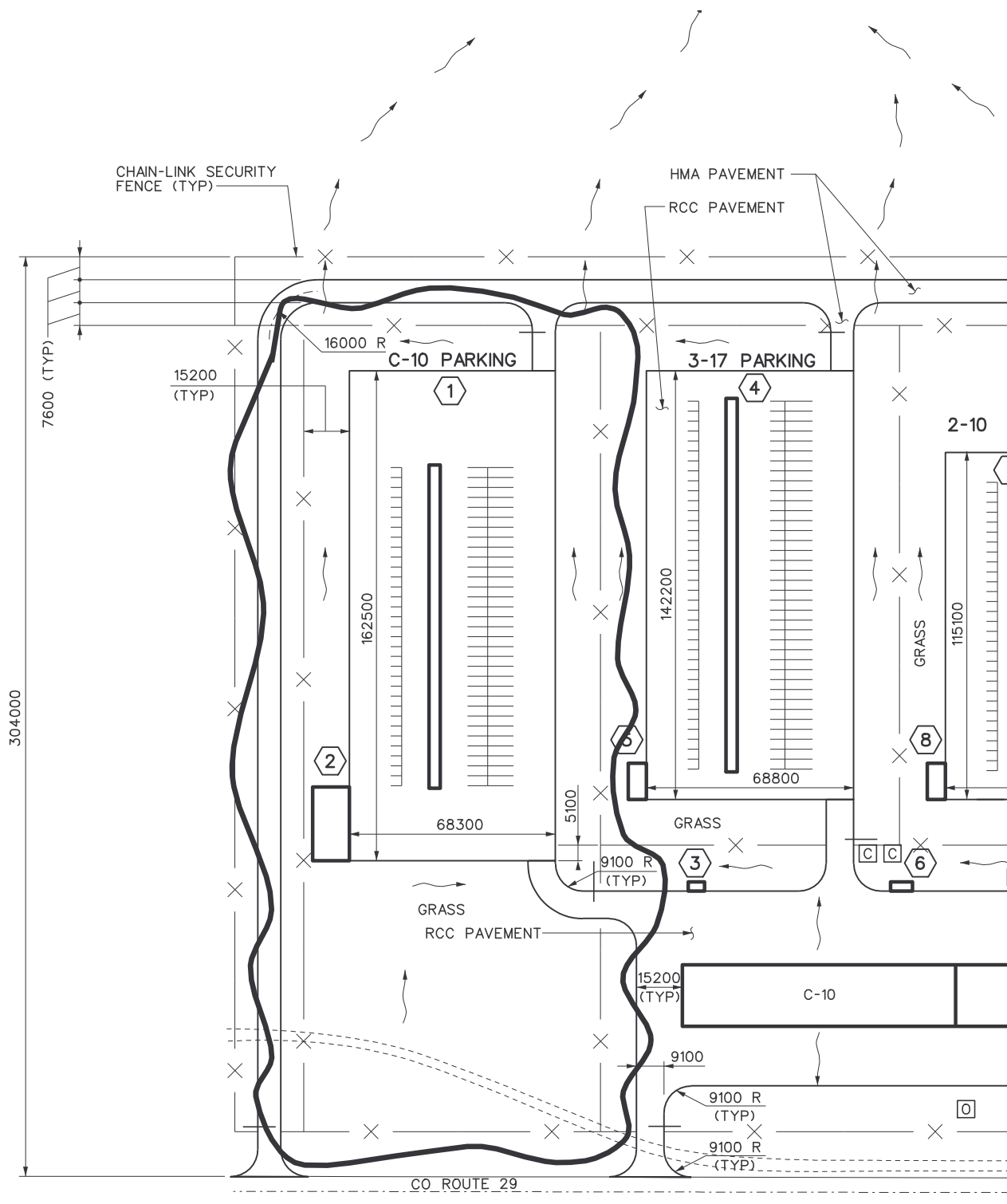


EXHIBIT C-5A

SECTION 00901

APPENDIX B

RFP SUSTAINABLE DESIGN RATING

**Department of the Army
New York District, Corps of Engineers**

SUSTAINABLE PROJECT RATING

Using

**Sustainable Project
Rating Tool (SPiRiT)**

Version 1.4

**for Aviation Brigade VMF
at
Ft. Drum, New York**

January, 2002

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NOTES

- 1) This Sustainable Project Rating Tool (SPiRiT) is derived from The U. S. Green Building Council LEED 2.0 (Leadership in Energy and Environmental Design) Green Building Rating System™.
- 2) The SPiRiT numbering scheme parallels, but does not match LEED 2.0. LEED does not number major sections, which it calls 'Credit Categories,' ex. 'Sustainable Sites,' rather it numbers criteria or 'credits' within each major section. SPiRiT credit numbers match those of LEED where there is a 1:1 comparison. Where additional credits have been added they fall at the end of major sections.
- 3) The SPiRiT Credits all follow the format: Intent, Requirement and Technologies/Strategies.

Intent: A statement of the primary goal for the credit;

Requirement: Quantifiable conditions necessary to achieve stated intent;

Technologies/Strategies: Suggested technologies, strategies and referenced guidance on the means to achieve identified requirements.

- 4) Projects are evaluated for each SPiRiT credit which are either 'Prerequisites' or result in a point score:

Prerequisites: These credits are a statement of minimum requirements and must be met. No further points will be awarded unless the minimum is achieved. These credits are recognizable by an 'R' in the number scheme, ex. 1.R1, and a 'Reqd.' in the score column.

Point Score: These credits are evaluated and result in a point score. Where the potential score is greater than 1, no partial points are granted.

- 5) SPiRiT Sustainable Project Certification Levels:

SPiRiT Bronze	25 to 34 Points
SPiRiT Silver	35 to 49 Points
SPiRiT Gold	50 to 74 Points
SPiRiT Platinum	75 to 100 Points

- 6) SPiRiT credits have been developed to address facility life cycle phases including programming, design, construction, and commissioning. Additional rating tools will be developed to address installation/base master planning and facilities operations and maintenance, rehabilitation, recycling, and disposal.

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1.0 Sustainable Sites

1.R1 Erosion, Sedimentation, and Water Quality Control

Reqd.

Intent: Control erosion and pollutants to reduce negative impacts on water and air quality.

Requirement: ☐ Design a site sediment and erosion control plan and a pollution prevention plan that conforms to best management practices in the EPA's Storm Water Management for Construction Activities, EPA Document No. EPA-833-R-92-001, Chapter 3, OR local Erosion and Sedimentation Control standards and codes, whichever is more stringent. The plan shall meet the following objectives:

- Prevent loss of soil during construction by storm water runoff and/or wind erosion, including protecting topsoil by stockpiling for reuse.
- Prevent sedimentation of storm sewer or receiving streams and/or air pollution with dust and particulate matter.
- Prevent hazardous material discharge into storm water systems.
- Prevent petroleum oils and lubricants (POL) discharge into storm water systems.

Technologies /Strategies: The EPA standard lists numerous measures such as silt fencing, sediment traps, oil grit separators, construction phasing, stabilization of steep slopes, maintaining vegetated ground cover and providing ground cover that will meet this prerequisite.

FT. DRUM		GOAL
Requirements	<ul style="list-style-type: none"> • Soil Sedimentation Plan submitted to the county contains the first two requirements. • Measures include inlet and outlet protection, silt fences, stabilization of construction traffic. • No hazardous materials on site. • Measures are stated in the specifications of the contract documents. • Soil Erosion Control plan is needed as documentation 	Reqd.
Action Needed	Erosion control plan.	
Suggested Certification Submittals	<p>Submittal 1 (LEED) Declare whether the project follows local erosion and sedimentation control standards or the referenced EPA standards and provide a brief listing of the measures implemented. If local standards and codes are followed, describe how they meet or exceed the EPA best management practices.</p> <p>Submittal 2 (LEED) Provide the erosion control plan (or drawings and specifications) with the sediment and erosion control measures highlighted</p> <p>Submittal 3 To meet additional SPiRiT requirement, provide a pollution prevention plan demonstrating measures that prevent discharge of hazardous substances, oils and lubricants into the stormwater system during and after construction.</p>	

1.0 Sustainable Sites (Continued)

1.C1 Site Selection

Intent: Avoid development of inappropriate sites and reduce the environmental impact from the location of a building on a site. Select site based on functional adjacencies/relationships and land use compatibility.

- Requirement: ☐ Do not develop buildings on portions of sites that meet any one of the following criteria: **1**
- Prime training or maneuver land.
 - Land whose elevation is lower than 5 ft. above the 100-year flood elevation as defined by FEMA.
 - Land that provides habitat for any species on the Federal or State threatened or endangered list.
 - Within 100 feet of any wetland as defined by 40 CFR, Parts 230-233 and Part 22, OR as defined by local or state rule or law, whichever is more stringent.
- ☐ Select site based on functional adjacencies/relationships and land use compatibility. **1**
- Select sites close to existing roads and utilities or use an existing structure to minimize the need for new infrastructure.
 - Select site in area of high density.
 - Site facilities based on the strength of their relationships to other facilities/land-uses to limit travel distances. The stronger the relationship/functional interaction, the closer the distance between two facilities.
 - Select for distance to installation/base transit systems and access to pedestrian ways and bike paths.
 - Select for development previously used or developed suitable and available sites.

Technologies /Strategies: Screen potential building sites for these criteria and/or ensure that these criteria are addressed by the designer during the conceptual design phase. Utilize landscape architects, ecologists, environmental engineers, civil engineers, and similar professionals for the screening process. New wetlands constructed as part of stormwater mitigation or other site restoration efforts are not affected by the restrictions of this prerequisite.

FT. DRUM		GOAL
Requirements	<input type="checkbox"/> Sites not to meet criteria: Project site does not encroach into any of the prohibited criteria.	1
	<input type="checkbox"/> Functional adjacencies: Site meets all requirements: close to existing roads and utilities, within a high density area, self-contained facility, established unit integrity and reduces soldier travel times existing facility. Previously disturbed site.	1
Action Needed	Erosion control plan.	
Suggested Certification Submittals	Submittal 1	Sites not to meet criteria: Declare that the project site does not meet any of the prohibited criteria.
	(LEED)	
	Submittal 2	Functional adjacencies: Describe how each SPiRiT requirement is being met, stating distances to facilities, transit systems, and densities as applicable. Distances shall be less than ½ mile (walking distance).
	(LEED)	

1.0 Sustainable Sites (Continued)

1.C2 Installation/Base Redevelopment

Intent: Channel development to installation/base cantonment areas with existing infrastructure, protecting greenfields and preserving habitat and natural resources.

- | | | |
|--------------|---|---|
| Requirement: | <input type="checkbox"/> Increase localized density to conform to existing or desired density goals by utilizing sites that are located within existing cantonment areas of high development density. | 1 |
| | <input type="checkbox"/> Select sites close to existing roads and utilities or use an existing structure to minimize the need for new infrastructure. | 1 |

Technologies /Strategies: During the site selection process give preference to previously developed sites with installation/base cantonment redevelopment potential such as facility reduction program cleared sites.

FT. DRUM		GOAL
Requirements	<input type="checkbox"/> Increase localized density: 60,000 sq.ft./ acre LEED requirement is struck in SPiRiT. It should therefore be sufficient to show in master plan that the renovated buildings are surrounded by an existing base and that the project results in a slight increase in density (as some additions are made to the existing buildings). Also, the existing base density is higher than the average density of military facilities.	0
	<input type="checkbox"/> Close to roads and utilities/ existing structure: Project uses existing roads.	1
Action Needed	Master Plan	
Suggested Certification Submittals	Submittal 1 (LEED)	Increase localized density: Statement of desired development density for site with applicable copy of master plan for site; area plan showing project density to be minimum 75% of desired development density.
	Submittal 2 (LEED)	Close to roads and utilities/ existing structure: Statement that project uses an existing structure (alternative, not applicable for this project: statement that distances to existing roads and utilities are less than 200').

1.0 Sustainable Sites (Continued)

1.C3 Brownfield Redevelopment

Intent: Rehabilitate damaged sites where development is complicated by real or perceived environmental contamination, reducing pressure on undeveloped land.

Requirement: ☐ Develop on a site classified as a brownfield and provide remediation as required by EPA's Brownfield Redevelopment program requirements OR Develop a brownfield site (a site that has been contaminated by previous uses). **1**

Technologies /Strategies: Screen potential damaged sites for these criteria prior to selection for rehabilitation.

Utilize EPA OSWER Directive 9610.17 and ASTM Standard Practice E1739 for site remediation where required.

FT. DRUM		GOAL
Requirements	<input type="checkbox"/> No brownfield on the site; therefore, credit not available.	0
Action Needed	None	
Suggested Certification Submittals	Submittal 1 Provide a letter from the local regulatory agency or regional EPA office confirming that the site is classified as an EPA Brownfield site. (LEED) Submittal 2 Provide documentation demonstrating that remediation efforts have been performed on the site to clean up or stabilize contaminants. (LEED)	

1.0 Sustainable Sites (Continued)

1.C4 Alternative Transportation

Intent: Reduce pollution and land development impacts from automobile use.

Requirement:	<input type="checkbox"/> Locate building within ½ mile of installation/base transit systems.	1
	<input type="checkbox"/> Provide suitable means for securing bicycles, with convenient changing/shower facilities for use by cyclists, for 5% or more of building occupants.	1
	<input type="checkbox"/> Locate building within 2 miles of alternative-fuel refueling station(s).	1
	<input type="checkbox"/> Size parking capacity not to exceed minimum installation/base cantonment requirements AND provide preferred parking for carpools or van pools capable of serving 5% of the building occupants, OR, add no new parking for rehabilitation projects AND provide preferred parking for carpools or van pools capable of serving 5% of the building occupants.	1

Technologies /Strategies: Select sites near public installation/base transit served by safe, convenient pedestrian pathways.

	FT. DRUM	GOAL
Requirements	<input type="checkbox"/> <i>Locate Near Public Transportation:</i> No public transit systems within ½ mile.	0
	<input type="checkbox"/> <i>Bicycle Storage & Changing Rooms:</i> Bike rack and shower facilities provided in the design.	1
	<input type="checkbox"/> <i>Alternative Fuel Refueling Stations:</i> No alternative-fuel refueling station within 2 miles.	0
	<input type="checkbox"/> <i>Minimum or No New Parking:</i> Project reduces parking spaces by four spaces due to the fire escape tower. Bus shuttle provided by the base - .vanpool preferred parking not required.	0
Action Needed	<i>Bicycle Storage & Changing rooms:</i> Show bike racks on Site Plan.	
Suggested Certification Submittals	Submittal 1 (LEED) <i>Locate Near Public Transportation:</i> Provide an area drawing highlighting the building location, the fixed rail stations and bus lines, and indicate the distances between them. Include a scale bar for distance measurement.	
	Submittal 2 (LEED) <i>Bicycle Storage & Changing Rooms:</i> Provide drawings and specifications highlighting bicycle securing apparatus and changing/ shower facilities.	
	Submittal 3 (LEED) <i>Alternative Fuel Refueling Stations:</i> Provide drawings and specifications highlighting alternative-fuel refueling stations. Include information on venting if applicable.	
	Submittal 4 (LEED) <i>Alternative Fuel Refueling Stations:</i> Provide calculations demonstrating that these facilities accommodate 3% or more of the total vehicle parking capacity.	
	Submittal 5 (LEED) <i>Minimum or No New Parking:</i> Provide a design narrative, parking plan, and company literature demonstrating that carpool and van pool programs serve 5% of the building occupants.	
	Submittal 6 (LEED) <i>Minimum or No New Parking:</i> For new projects, provide a copy of the local zoning requirements highlighting the criteria for minimum parking capacity. Provide a parking plan highlighting the total parking capacity. OR For rehabilitation projects, provide a pre-rehabilitation parking plan and a post-rehabilitation parking plan demonstrating that no new parking capacity was added.	

1.0 Sustainable Sites (Continued)

1.C5 Reduced Site Disturbance

Intent: Conserve existing natural areas and restore damaged areas to provide habitat and promote biodiversity.

- Requirement: ☐ On greenfield sites, limit site disturbance including earthwork and clearing of vegetation to 40 feet beyond the building perimeter, 5 feet beyond primary roadway curbs, walkways, and main utility branch trenches, and 25 feet beyond pervious paving areas that require additional staging areas in order to limit compaction in the paved area; OR, on previously developed sites, restore a minimum of 50% of the remaining open area by planting native or adapted vegetation. **1**
- ☐ Reduce the development footprint (including building, access roads and parking) to exceed the installation/base's/master plan local zoning's open space requirement for the site by 25% or in accordance with installation/base policy on open space set asides, whichever is greater. **1**

Technologies /Strategies: Note requirements on plans and in specifications. Establish contractual penalties for destruction of trees and site areas noted for protection. Reduce footprints by tightening program needs and stacking floor plans. Establish clearly marked construction and disturbance boundaries. Delineate laydown, recycling, and disposal areas. Use areas to be paved as staging areas. Work with local horticultural extension services, or native plant societies, or installation/base agronomy staff to select indigenous plant species for site restoration and landscaping.

FT. DRUM		GOAL
Requirements	<input type="checkbox"/> <i>Greenfield sites:</i> The project does not meet this requirement.	0
	<input type="checkbox"/> <i>Reduce Footprint:</i> Initial assessment is that the project does not meet this requirement. However, base policy on this issue should be further explored.	0
Action Needed	None	
Suggested Certification Submittals	Submittal 1 (LEED)	<i>Greenfield sites:</i> provide site drawings and specifications highlighting limits of construction disturbance. OR On previously developed sites, provide a narrative describing restoration of degraded habitat areas. Include highlighted site drawings with area calculations demonstrating that 50% of degraded habitat areas have been restored.
	Submittal 2 (LEED)	<i>Reduce Footprint:</i> Provide a copy of the local zoning requirements highlighting the criteria for open space.
	Submittal 3 (LEED)	<i>Reduce Footprint:</i> Provide highlighted site drawings with area calculations demonstrating that the building footprint exceeds the local zoning open space requirement for the site by 25%.
	Submittal 4 (LEED)	<i>Reduce Footprint:</i> For areas with no local zoning requirements (e.g., university campuses, military bases), designate open space area adjacent to the building that is equal to the building footprint. Provide a letter from the property owner stating that the open space will be conserved for the life of the building.

1.0 Sustainable Sites (Continued)

1.C6 Stormwater Management

Intent: Limit disruption of natural water flows by minimizing storm water runoff, increasing on-site infiltration and reducing contaminants.

Requirement: Implement a stormwater management plan that results in:

- ☐ No net increase in the rate or quantity of stormwater runoff from undeveloped to developed conditions; OR, if existing imperviousness is greater than 50%, implement a stormwater management plan that results in a 25% decrease in the rate and quantity of stormwater runoff. **1**
- ☐ Treatment systems designed to remove 80% of the average annual post development total suspended solids (TSS), and 40% of the average annual post development total phosphorous (TP), by implementing Best Management Practices (BMPs) outlined in EPA's Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters (EPA -840-B-92-002 1/93). **1**

Technologies /Strategies: Significantly reduce impervious surfaces, maximize on-site stormwater infiltration, and retain pervious and vegetated areas. Capture rainwater from impervious areas of the building for groundwater recharge or reuse within building. Use green/vegetated roofs. Utilize biologically-based and innovative stormwater management features for pollutant load reduction such as constructed wetlands, stormwater filtering systems, bioswales, bio-retention basins, and vegetated filter strips. Use open vegetated swales to reduce drainage velocity and erosion, reduce system maintenance, increase vegetative variety and support wildlife habitat where space permits.

FT. DRUM		GOAL
Requirements	<input type="checkbox"/> <i>No Net Increase or 25% Decrease:</i> The project does not meet this requirement.	0
	<input type="checkbox"/> <i>Treatment Systems:</i> The project does not meet this requirement.	0
Action Needed	None	
Suggested Certification Submittals	Submittal 1 (LEED)	<i>No Net Increase or 25% Decrease:</i> For sites with less than 50% net imperviousness, provide pre-construction and post-construction site drawings. Include area calculations demonstrating no increase in net imperviousness of the site. OR For sites with greater than 50% net imperviousness, provide a copy of the stormwater management plan. Include calculations describing how the measures of the plan decrease net imperviousness of the site by 25% over existing conditions.
	Submittal 2 (LEED)	<i>Treatment Systems:</i> Provide drawings and specifications describing EPA Best Management Practices implemented for removal of TSS and TP.
	Submittal 3 (LEED)	<i>Treatment Systems:</i> Provide calculations to demonstrate that the BMPs meet or exceed the minimum treatment requirements of the credit.

1.0 Sustainable Sites (Continued)

1.C7 Landscape and Exterior Design to Reduce Heat Islands

Intent: Reduce heat islands (thermal gradient differences between developed and undeveloped areas) to minimize impact on microclimate and human and wildlife habitat.

- Requirement: ☐ Provide shade (within 5 years) on at least 30% of non-roof impervious surface on the site, including parking lots, walkways, plazas, etc., OR, use light-colored/ high-albedo materials (reflectance of at least 0.3) for 30% of the site's non-roof impervious surfaces, OR place a minimum of 50% of parking space under-ground OR use open-grid pavement system (net impervious area of LESS than 50%) for a minimum of 50% of the parking lot area. **1**
- ☐ Use ENERGY STAR Roof compliant, high-reflectance AND low emissivity roofing (initial reflectance of at least .65 and three-year-aged reflectance of at least .5 when tested in accordance with ASTM E408) for a minimum of 75% of the roof surface; OR, install a "green" (vegetated) roof for at least 50% of the roof area. **1**

Technologies /Strategies: Employ design strategies, materials, and landscaping designs that reduce heat absorption of exterior materials. Note albedo/reflectance requirements in the drawings and specifications. Provide shade (calculated on June 21, noon solar time) using native or climate tolerant trees and large shrubs, vegetated trellises, or other exterior structures supporting vegetation. Substitute vegetated surfaces for hard surfaces. Explore elimination of blacktop and the use of new coatings and integral colorants for asphalt to achieve light colored surfaces.

FT. DRUM		GOAL
Requirements	<input type="checkbox"/> <i>Site Surfaces:</i> Project does not meet this requirement.	0
	<input type="checkbox"/> <i>Roof Surfaces:</i> Project does not meet this requirement.	0
Action Needed	None	
Suggested Certification Submittals	Submittal 1 (LEED)	<i>Site Surfaces:</i> Provide drawings highlighting all non-roof impervious surfaces and portions of these surfaces that will be shaded within five years. Include calculations demonstrating that a minimum of 30% of non-roof impervious surfaces areas will be shaded within five years. OR Provide specifications and cut sheets for high-albedo materials applied to non-roof impervious surfaces highlighting the reflectance of the installed materials.
	Submittal 2 (LEED)	<i>Site Surfaces:</i> Provide drawings and calculations demonstrating that these materials are furnished and installed on 30% of non-roof impervious surfaces. OR Provide a parking plan demonstrating that a minimum of 50% of site parking spaces are located underground. OR Provide drawings and cut sheets for a pervious paving system with a minimum perviousness of 50%. Include calculations demonstrating that this paving system covers a minimum of 50% of the total parking area.

1.0 Sustainable Sites (Continued)

1.C8 Light Pollution Reduction

Intent: Eliminate light trespass from the building site, improve night sky access, and reduce development impact on nocturnal environments.

Requirement: ☐ Do not exceed Illuminating Engineering Society of North America (IESNA) footcandle level requirements as stated in the Recommended Practice Manual: Lighting for Exterior Environments, AND design interior and exterior lighting such that zero direct-beam illumination leaves the building site. **1**

Technologies /Strategies: Consult IESNA Recommended Practice Manual: Lighting for Exterior Environments for Commission Internationale de l'Eclairage (CIE) zone and pre and post curfew hour descriptions and associated ambient lighting level requirements. Ambient lighting for pre-curfew hours for CIE zones range between .01 footcandles for areas with dark landscapes such as parks, rural, and residential areas, and 1.5 footcandles for areas with high ambient brightness such as installation/base areas with high levels of nighttime activity. Design site lighting and select lighting styles and technologies to have a minimal impact off-site and minimal contribution to sky glow. Minimize lighting of architectural and landscape features. Exterior lighting should be consistent with security lighting requirements.

	FT. DRUM	GOAL
Requirements	Installation design complies with the IESNA requirements.	1
Action Needed	<p>Suggested resolution to meet requirements:</p> <p>Parking lot, roadway, and building lighting to meet the following:</p> <ul style="list-style-type: none"> • Design and select fixtures so that zero direct beam illumination leaves the parking lot and building site. • Parking lot lights will be shoebox type fixtures with cutoffs to direct the light down on the parking area and not into the sky. • Use type IV and V distribution patterns for selected fixtures. • Exterior lighting can be controlled with timers to coordinate with VMF work shifts and reduce the amount of light required at night during non-working hours. • Security lighting requirements will still need to be maintained. 	
Suggested Certification Submittals	<p>Submittal 1 (LEED) Provide a brief exterior lighting design narrative and exterior lighting design plan demonstrating the lighting objectives and measures that prevent any direct-beam illumination from leaving the building site.</p> <p>Submittal 2 (LEED) Provide an exterior lighting design plan that illustrates the location of all lighting fixtures and the features they are to light.</p> <p>Submittal 3 (LEED) Demonstrate that the design will use diffuse or muted light, will meet the IESNA Illuminance values measured at eye height, and not create glare or direct lighting onto neighboring property, streets or the night sky.</p>	

1.0 Sustainable Sites (Continued)

1.C9 Optimize Site Features

Intent: Optimize utilization of the site's existing natural features and placement of man-made features on the site.

Requirement: ☐ Perform both of the following: 1

- Maximize the use of free site energy.
- Plan facility, parking and roadways to "fit" existing site contours and limit cut and fill.

Technologies /Strategies: Evaluate site resources to ascertain how each can enhance the proposed project and visa versa. Work to maximum advantage of the site's solar and wind attributes. Use landscaping to optimize solar and wind conditions and to contribute to energy efficiency; Locate and orient the facility on the site to optimize solar and wind conditions.

	FT. DRUM	GOAL
Requirements		0
Action Needed	None	
Suggested Certification Submittals	Submittal 1 (LEED)	Site Plan showing prevailing winds, sun path diagram, long building axis within 15% of east-west, vegetation deflecting winds, vegetation providing shading, and balanced cut and fill.

1.0 Sustainable Sites (Continued)

1.C10 Facility Impact

Intent: Minimize negative impacts on the site and on neighboring properties and structures; avoid or mitigate excessive noise, shading on green spaces, additional traffic, obscuring significant views, etc.

- Requirement: ☐ Cluster facilities to reduce impact, access distance to utilities and sufficient occupant density to support mass transit. **1**
- ☐ Collaborate with installation/base and community planners to identify and mitigate potential impacts of the project beyond site boundaries, and transportation planners to insure efficient public transport. **1**

Technologies /Strategies: Involve local/regional planners and community members in installation/base master planning processes. Recognize the context and the impact of a project beyond site boundaries, and integrate it with the larger installation/base/community context/land use.

FT. DRUM		GOAL
Requirements	<input type="checkbox"/> <i>Cluster Facilities:</i> Buildings will be centrally located on site with parking areas clustered together on one side.	0
	<input type="checkbox"/> <i>Mitigate potential impacts:</i> Site is located at intersection of two primary roads resulting in efficient access by public transportation systems.	1
Action Needed	Master Plan	
Suggested Certification Submittals	Submittal 1	<i>Cluster facilities:</i> Provide site plan and calculations showing density on site to be minimum 60,000 sq. ft. per acre.
	Submittal 2	<i>Mitigate potential impacts:</i> Provide statement how the project makes a significant contribution toward mitigating potential or existing impacts beyond site boundaries.

1.0 Sustainable Sites (Continued)

1.C11 Site Ecology

Intent: Identify and mitigate all existing site problems including contamination of soil, water, and air, as well as any negative impacts caused by noise, eyesores, or lack of vegetation, enhancing or creating new site habitat.

Requirement: ☐ Develop site environmental management and mitigation plan.

1

Technologies /Strategies: Understand site and surrounding ecosystem interdependence and interconnectivity. Plan landscaping scheme to incorporate biodiversity. Preserve/enhance existing trees, hydrological features, ecosystems, habitats, and cultural resources. Increase the existence of healthy habitat for native species. Reintroduce native plants and trees where they have been destroyed by previous development.

FT. DRUM

GOAL

Requirements The project does not meet the requirement.

0

Action Needed None

Suggested Certification Submittals Submittal 1 Provide a written site environmental management and mitigation plan for the project.

2.0 Water Efficiency

2.C1 Water Efficient Landscaping

Intent: Limit or eliminate the use of potable water for landscape irrigation.

- | | | |
|--------------|--|---|
| Requirement: | <input type="checkbox"/> Use high efficiency irrigation technology, OR, use captured rain or recycled site water to reduce potable water consumption for irrigation by 50% over conventional means. | 1 |
| | <input type="checkbox"/> Use only captured rain or recycled site water for an additional 50% reduction (100% total reduction) of potable water for site irrigation needs, OR, do not install permanent landscape irrigation systems. | 1 |

Technologies /Strategies: Develop a landscaping water use baseline according to the methodology outlined in the LEED Reference Guide. Specify water-efficient, native or adapted, climate tolerant plantings. High efficiency irrigation technologies include micro irrigation, moisture sensors, or weather data based controllers. Feed irrigation systems with captured rainwater, gray water, or on-site treated wastewater.

FT. DRUM		Goal
Requirements	Project does not require irrigation. Since the majority of the site will be paved.	1
Suggested Certification Submittals	Submittal 1 (LEED)	<i>Reduce by 50%:</i> Provide cut sheets for high-efficiency irrigation equipment. Include calculations demonstrating that potable water consumption for irrigation is reduced by 50%. OR Provide drawings and a narrative describing the captured
	Submittal 2 (LEED)	<i>Reduce Additional 50% or No Irrigation:</i> Provide drawings and a narrative describing the captured rain system or recycled site water system with the capacity of the system highlighted. Include calculations demonstrating potable water consumption for irrigation is reduced by 100%. OR Provide a design narrative of the landscape design and describe why a permanent landscape irrigation system is not required.

2.0 Water Efficiency (Continued)

2.C2 Innovative Wastewater Technologies

Intent: Reduce generation of wastewater and potable water demand, while increasing local aquifer recharge.

Requirement: ☐ Reduce the use of municipally provided potable water for building sewage conveyance by a minimum of 50%, OR, treat 100% of wastewater on site to tertiary standards. **1**

Technologies /Strategies: Develop a wastewater baseline according to the methodology outlined in the LEED Reference Guide. Implement decentralized on-site wastewater treatment and reuse systems. Decrease the use of potable water for sewage conveyance by utilizing gray and/or black water systems. Non-potable reuse opportunities include, toilet flushing, landscape irrigation, etc. Provide advanced wastewater treatment after use by employing innovative, ecological, on-site technologies including constructed wetlands, a mechanical recirculating sand filter, or aerobic treatment systems.

FT. DRUM		GOAL
Requirements	Reduce potable water sewage conveyance by 50%	0
	<ol style="list-style-type: none"> 1. Greywater in toilets 2. Greywater retrieval from showers/ hand washing 3. Roof area with relatively clean area 4. Waterless urinals 5. Flushometers on toilets. 	
Action Needed	Check on greywater issues: codes, cost and implication of greywater storage tanks. Provide drawings, specs and narrative, and letter from health department.	
Suggested Certification Submittals	Submittal 1 (LEED) Provide a narrative of measures implemented to reduce potable water sewage conveyance. Include calculations demonstrating that potable water sewage conveyance volumes are reduced by 50% over baseline conditions. OR Provide drawings, specifications and a narrative demonstrating that 100% of building wastewater volumes is directed to an on-site wastewater treatment system that provides treatment to tertiary levels. Include a letter from the local health department documenting compliance with local codes.	

2.0 Water Efficiency

2.C3 Water Use Reduction

Intent: Maximize water efficiency within buildings to reduce the burden on municipal water supply and wastewater systems.

- Requirement: ☐ Employ strategies that in aggregate use 20% less water than the water use baseline calculated for the building (not including irrigation) after meeting Energy Policy Act (EPACT) of 1992 fixture performance requirements. **1**
- ☐ Exceed the potable water use reduction by an additional 10% (30% total efficiency increase). **1**

Technologies /Strategies: Develop a water use baseline including all water consuming fixtures, equipment, and seasonal conditions according to methodology guidance outlined in the LEED Reference Guide. Specify water conserving plumbing fixtures that exceed Energy Policy Act (EPACT) of 1992 fixture requirements in combination with ultra high efficiency or dry fixture and control technologies. Specify high water efficiency equipment (dishwashers, laundry, cooling towers, etc.). Use alternatives to potable water for sewage transport water. Use recycled or storm water for HVAC/process make up water. Install cooling tower systems designed to minimize water consumption from drift, evaporation and blowdown.

	FT. DRUM	GOAL
Requirements	<p><i>Reduce overall potable water usage by 20%:</i></p> <ol style="list-style-type: none"> 1. See above tactics in 2.C1 and 2.C2. 2. Use select water reducing fixtures <ol style="list-style-type: none"> a. Waterless urinals b. Infrared sensors on sinks with temperature control. Hand washing c. Reduced water usage appliances in commercial and cadet laundry facilities (1/3 – ½ standard of washing machine.) d. Equipment towel washers etc. e. Infrared flush valves for toilets f. Do not use water saving showerheads and sink faucets. <p>Benefit: Water bill reduction 30% - 50%?</p>	0
	<p><i>Reduce overall potable water usage by 30%:</i></p> <p>Is probably not met unless greywater can be used in above mentioned areas. Unlikely due to oil waste in water.</p>	0
Action Needed	Plumbing Fixtures specified with water saving fixtures.	
Suggested Certification Submittals	<p>Submittal 1 Provide cut sheets for all water consuming fixtures necessary for the occupancy use of the building, with water conservation specifications highlighted. Demonstrate that plumbing fixtures meet or exceed fixture performance requirements of the Energy Policy Act of 1992.</p> <p>(LEED)</p> <p>Submittal 2 Provide a water budget calculation demonstrating that occupancy based potable water consumption is reduced by 20% over baseline conditions.</p> <p>(LEED0</p>	

3.0 Energy and Atmosphere

3.R1 Fundamental Building Systems Commissioning

Reqd.

Intent: Verify and ensure that fundamental building elements and systems are designed, installed and calibrated to operate as intended.

Requirement: ☐ Implement all of the following fundamental best practice commissioning procedures.

- Engage a commissioning authority.
- Develop design intent and basis of design documentation.
- Include commissioning requirements in the construction documents.
- Develop and utilize a commissioning plan.
- Verify installation, functional performance, training and documentation.
- Complete a commissioning report.

Technologies /Strategies: Introduce standards and strategies into the design process early, and then carry through selected measures by clearly stating target requirements in the construction documents. Tie contractor final payments to documented system performance. Perform additional commissioning in accordance with the DOE Building Commissioning Guide, Version 2.2. Refer to the LEED Reference Guide for detailed descriptions of required elements and references to additional commissioning guides. Specify pre-occupancy baseline IAQ testing at time of commissioning. Test for indoor air concentrations of CO, CO2, total VOCs and particulates. Test to assure that adequate ventilation rates have been achieved prior to initial occupancy.

FT. DRUM		Goal
Requirements	Provide basic commissioning by base facility operations group; this will meet the requirement	Reqd.
Action Needed	Commissioning is specified for this project specification requires that a commissioning plan be developed and utilized, a commissioning report is provided, and that the installation, functional performance, training and documentation are verified.	
Suggested Certification Submittals	Submittal 1 (LEED)	Provide a copy of the commissioning plan highlighting the six fundamental commissioning procedures as listed in the credit requirements.
	Submittal 2 (LEED)	Provide a signed letter of certification by the commissioning authority confirming that the commissioning plan has been successfully executed and the design intent of the building has been achieved.

3.0 Energy and Atmosphere (Continued)

3.R2	<u>Minimum Energy Performance</u>	Reqd.
Intent:	Establish the minimum level of energy efficiency for the base building and systems.	
Requirement:	<input type="checkbox"/> Design to meet building energy efficiency and performance as required by TI 800-01 (Design Criteria).	
Technologies /Strategies:	<p>Use building modeling and analysis techniques to establish and document compliance. ASHRAE/IESNA 90.1-1999 provides guidance for establishing building base case development and analysis. Refer to the LEED Reference Guide for a wide variety of energy efficiency strategy resources.</p> <p>Use a professionally recognized and proven computer program or programs that integrate architectural features with air-conditioning, heating, lighting, and other energy producing or consuming systems. These programs will be capable of simulating the features, systems, and thermal loads used in the design. Using established weather data files, the program will perform 8760 hourly calculations. BLAST, DOE-2 or EnergyPlus are acceptable programs for these purposes.</p>	

	FT. DRUM	Goal
Requirements	Show that building meets the energy performance as shown In T1-800-01, for building type and location. Building is exempt from these requirements due to large process ventilation loads.	Reqd.
Action Needed	Specifications require DB-Engineer to produce a building in compliance with EUB requirements. Specification requires DB-Engineer submit computer energy model output, and input.	
Suggested Certification Submittals	Submittal 1 (LEED)	Provide computer energy model output that shows energy performance in compliance with T1-800-01, for building type and location.

3.0 Energy and Atmosphere (Continued)

3.R3 CFC Reduction in HVAC&R Equipment

Reqd.

Intent: Reduce ozone depletion.

Requirement: ☐ Zero use of CFC-based refrigerants in new base building HVAC&R systems. When reusing existing base building HVAC equipment, complete a comprehensive CFC phaseout conversion.

Technologies /Strategies: Specify only non-CFC-based refrigerants in all base building HVAC&R systems.

FT. DRUM

Goal

Requirements The building does not make use of CFC-bases refrigerants in its HVAC&R systems.

Reqd.

Action Needed Specifications do not allow CFC refrigerants.

Suggested Certification Submittals Submittal 1 (LEED) For new buildings, provide equipment schedules and cut sheets highlighting refrigerant information for all HVAC&R components. OR For existing buildings, provide a listing of all existing HVAC& R components and state whether each components uses CFCs. For those components that use CFCs, provide a copy of the phase-out plan describing how these components will be converted or removed and replaced with CFC-free components before construction is complete.

3.0 Energy and Atmosphere (Continued)

3.C1 Optimize Energy Performance

Intent: Achieve increasing levels of energy performance above the prerequisite standard to reduce environmental impacts associated with excessive energy use.

Requirement: ☐ Reduce design energy usage (DEU) compared to the energy use budget (EUB) in joules per square meter per year for regulated energy components as described in the requirements of Chapter 11 of the TI 800-01 (Design Criteria), as demonstrated by a whole building simulation. **20**

- 1 Point will be awarded for every reduction in design energy use of 2.5% for both new and existing facilities for a maximum score of 20 points.

Regulated energy components include HVAC systems, building envelope, service hot water systems, lighting and other regulated systems as defined by ASHRAE.

Technologies /Strategies: Develop and use building modeling and analysis techniques to establish a base case that meets the minimum prerequisite standard. ASHRAE/IESNA 90.1-1999 provides guidance for establishing building base case development and analysis. Perform interactive energy use analysis for selected design elements that affect energy performance and document compliance.

Unit of measure for performance shall be annual energy usage in joules per square meter. Life-Cycle energy costs shall be determined using rates for purchased energy, such as electricity, gas, oil, propane, steam, and chilled water and approved by the adopting authority. Refer to the LEED Reference Guide or Whole Building Design Guide for a wide variety of energy efficiency resources and strategies including conservation measures, electromechanical energy efficiency technologies (for example ground-source heat pumps), passive heating and cooling strategies, solar hot water, and daylighting.

Life-Cycle costing will be done in accordance with 10 CFR 436.

Consider installation of an Energy Management and Control System (EMCS), which is compatible with exiting installation systems to optimize performance. Use sensors to control loads based on occupancy, schedule and/or the availability of natural resources use (day light or natural ventilation).

FT. DRUM		Goal
Requirements	Overall the systems chosen for the project are very efficient. The opportunities for additional energy savings through daylighting and renewables are not available for this project because of cost and the nature of the building. Efficient layout of the systems is essential to capture the energy performance potential of them. Also due to large process load building is exempt from requirements. To meet EUB. will need clarification how energy savings can apply.	0
Action Needed	Develop energy model of building and compare its energy performance with the Energy Use Budget.	
Suggested Certification Submittals	Submittal 1 (LEED)	Provide a narrative highlighting energy-saving measures incorporated in the building design, including an isometric of the building showing the basic floor plate shape and external projections.
	Submittal 2 (LEED)	Demonstrate the design energy usage compared to the energy use budget by providing computer model output and an analysis statement of the comparison.

3.0 Energy and Atmosphere (Continued)

3.C2 Renewable Energy

Intent: Encourage and recognize increasing levels of self-supply through renewable technologies to reduce environmental impacts associated with fossil fuel energy use.

Requirement: ☐ Supply a net fraction of the building's total energy use through the use of on-site renewable energy systems.

% of Total Annual Energy Usage in Renewables

5%	1
10%	2
15%	3
20%	4

Technologies /Strategies: Employ the use of on-site non-polluting-source renewable technologies contributing to the total energy requirements of the project. Consider and use high temperature solar and/or geothermal, photovoltaics, wind, biomass (other than unsustainably harvested wood), and bio-gas. Passive solar, solar hot water heating, ground-source heat pumps, and daylighting do not qualify for points under this credit. Credit for these strategies is given in Energy & Atmosphere Credit 1: Optimizing Energy Performance.

FT. DRUM

Goal

Requirements Project does not meet this requirement.

0

Action Needed None

Suggested Certification Submittals Submittal 1 Provide drawings, cut sheets, and specifications highlighting on-site renewable energy systems installed in the building.
(LEED)

Submittal 2 Provide calculations demonstrating that 5% of total energy costs are supplies by on-site renewable energy systems.
(LEED)

3.0 Energy and Atmosphere (Continued)

3.C3 Additional Commissioning

Intent: Verify and ensure that the entire building is designed, constructed, and calibrated to operate as intended.

Requirement: ☐ In addition to the Fundamental Building Commissioning prerequisite, implement the following additional commissioning tasks: **1**

1. Conduct a focused review of the design prior to the construction documents phase.
2. Conduct a focused review of the construction documents when close to completion.
3. Conduct a selective review of contractor submittals of commissioned equipment.
4. Develop a system and energy management manual.
5. Have a contract in place for a near-warranty end or post occupancy review.

Items 1, 2, and 3 must be performed by someone other than the designer.

Technologies /Strategies: Introduce standards and strategies into the design process early, and then carry through selected measures by clearly stating target requirements in the construction documents. Tie contractor final payments to documented system performance. Refer to the LEED Reference Guide for detailed descriptions of required elements and references to additional guidelines.

	FT. DRUM	Goal
Requirements	This is an additional cost as a third party agency will be needed to provide the commissioning. Provide if budget allows.	0
Action Needed	Add additional requirements to specifications.	
Suggested Certification Submittals	<p>Submittal 1 Provide an excerpt from the commissioning plan highlighting the five additional commissioning tasks as listed in the credit requirements. (LEED)</p> <p>Submittal 2 Provide a signed letter of certification by an independent commissioning authority confirming that Tasks 1, 2, and 3 of the credit requirements have been successfully executed. (LEED)</p> <p>Submittal 3 Provide a signed letter of certification by an independent commissioning authority or designer confirming that Tasks 4 and 5 of the credit requirements have been successfully executed. (LEED)</p>	

3.0 Energy and Atmosphere (Continued)

3.C4 << Deleted >>

3.0 Energy and Atmosphere (Continued)

3.C5 Measurement and Verification

Intent: Provide for the ongoing accountability and optimization of building energy and water consumption performance over time.

- Requirement: ☐ Comply with the installed equipment requirements for continuous metering as stated in selected Measurement and Verification Methods - Option B: Retrofit Isolation of the US DOE's International Performance Measurement and Verification Protocol (IPMVP) for the following: **1**
- Lighting systems and controls.
 - Constant and variable motor loads.
 - Variable frequency drive (VFD) operation.
 - Chiller efficiency at variable loads (kW/ton).
 - Cooling load.
 - Air and water economizer and heat recovery cycles.
 - Air distribution static pressures and ventilation air volumes.
 - Boiler efficiencies.
 - Building specific process energy efficiency systems and equipment.
 - Indoor water risers and outdoor irrigation systems.

Technologies /Strategies: Design and specify equipment to be installed in base building systems to allow for comparison, management, and optimization of actual vs. estimated energy and water performance. Employ building automation systems to perform M&V functions where applicable. Tie contractor final payments to documented M&V system performance and include in the commissioning report. Provide for ongoing M&V system maintenance and operating plan in building operations and maintenance manuals. Consider installation/base of an Energy Management and Control System (EMCS), which is compatible with exiting installation/base systems to optimize performance.

FT. DRUM		Goal
Requirements	<p>Metering.</p> <p>This could be met by having a Direct Digital Control (DDC) building control system record data. Provide DDC system with the points (as in data points) necessary to record the data listed in the requirement. This may be cost-prohibitive as extra points may be needed over the base DDC system.</p>	0
Action Needed	Add additional metering points (data points) as long as they are not cost prohibitive.	
Suggested Certification Submittals	<p>Submittal 1 Provide a copy of the Measurement & Verification Plan.</p> <p>(LEED)</p> <p>Submittal 2 Include a summary schedule of the instrumentation and controls for the ten required monitoring categories, highlighting the I/O data points to be collected.</p> <p>(LEED)</p> <p>Submittal 3 Include cut sheets of sensors and the data collection system used to provide continuous metering per IPMVP standards.</p> <p>(LEED)</p>	

3.0 Energy and Atmosphere (Continued)

3.C6 Green Power

Intent: Encourage the development and use of grid-source, renewable energy technologies on a net zero pollution basis.

Requirement: ☐ Engage in a two year contract to purchase the amount of power equal to projected building consumption generated from renewable sources that meet the Center for Resource Solutions (CRS) Green-E requirements. **1**

Technologies /Strategies: Purchase power from a provider that guarantees a fraction of its delivered electric power is from net nonpolluting renewable technologies. Begin by contacting local utility companies. If the project is in an open market state, investigate Green Power and Power Marketers licensed to provide power in that state. Grid power that qualifies for this credit originates from solar, wind, geothermal, biomass, or low -impact hydro sources. Low -impact hydro shall comply with the Low Impact Hydropower Certification Program.

	FT. DRUM	Goal
Requirements	Currently not possible. Possible in 2004 because of deregulation. If deregulation provides for power companies to sell green power, and if Ft. Drum purchases green power, this point is possible.	0
Action Needed	Later date for evaluation.	
Suggested Certification Submittals	<p>Submittal 1 Provide a copy of the two-year electric utility purchase contract for power generated from renewable sources.</p> <p>(LEED)</p> <p>Submittal 2 Provide documentation demonstrating that the supplied renewable power meets the referenced Green-E requirements.</p> <p>(LEED)</p>	

3.0 Energy and Atmosphere (Continued)

3.C7 Distributed Generation

Intent: Encourage the development and use of distributed generation technologies, which are less polluting than grid-source energy.

Requirement: ☐ Reduce total energy usage and emissions by considering source energy implications and local cogeneration and direct energy conversion. Generate at least 50% of the building's projected annual consumption by on-site distributed generation sources. **1**

Technologies /Strategies: Investigate the use of integrated generation and delivery systems, such as co-generation, fuel cells, micro-turbines and off-peak thermal storage.

	FT. DRUM	Goal
Requirements	Project does not meet this requirement.	0
Action Needed	None	
Suggested Certification Submittals	Submittal 1 (LEED)	Provide statement and calculations demonstrating that 50% of the building design energy usage is met by sources other than grid sources.

4.0 Materials and Resources

4.R1 Storage & Collection of Recyclables

Reqd.

Intent:	Facilitate the reduction of waste generated by building occupants that is hauled to and disposed of in landfills.
Requirement:	<input type="checkbox"/> Provide an easily accessible area that serves the entire building that is dedicated to the separation, collection and storage of materials for recycling including (at a minimum) paper, glass, plastics, and metals.
Technologies /Strategies:	Establish a waste management plan which meets requirements of the installation/base environmental and/or solid waste management plans in cooperation with users to encourage recycling. Reserve space for recycling functions early in the building occupancy programming process and show areas dedicated to collection of recycled materials on space utilization plans. Broader recycling support space considerations should allow for collection and storage of the required elements and newspaper, organic waste (food and soiled paper), and dry waste. When collection bins are used, bin(s) should be able to accommodate a 75% diversion rate and be easily accessible to custodial staff and recycling collection workers. Consider bin designs that allow for easy cleaning to avoid health issues.

	FT. DRUM	GOAL
Requirements	Project will meet this requirement.	Reqd.
Action Needed	Plan showing location and path. Information on recycling material volumes.	
Suggested Certification Submittals	Submittal 1 (LEED)	Provide drawings highlighting locations for collection and storage of materials separated for recycling. Indicate the path from recycling locations to the building receiving area and demonstrate that the recycling area can handle the recycling material volumes generated by building occupants.

4.0 Materials and Resources (Continued)

4.C1 Building Reuse

Intent: Extend the life cycle of existing building stock, conserve resources, retain cultural resources, reduce waste, and reduce environmental impacts of new buildings as they relate to materials manufacturing and transport.

Requirement: Reuse large portions of existing structures during renovation or redevelopment projects.

- | | |
|--|---|
| <input type="checkbox"/> Maintain at least 75% of existing building structure and shell (exterior skin and framing excluding window assemblies). | 1 |
| <input type="checkbox"/> Maintain an additional 25% (100% total) of existing building structure and shell (exterior skin and framing excluding window assemblies). | 1 |
| <input type="checkbox"/> Maintain 100% of existing building structure and shell AND 50% non-shell (walls, floor coverings, and ceiling systems). | 1 |

Technologies /Strategies: Evaluate retention of existing structure. Consider facade preservation, particularly in installation/base areas. During programming and space planning, consider adjusting needs and occupant use patterns to fit within existing building structure and interior partition configurations. Identify and effectively address energy, structural, and indoor environmental (lead & asbestos) issues in building reuse planning and deconstruction documents. Percentage of reused non-shell building portions will be calculated as the total area (s.f.) of reused walls, floor covering, and ceiling systems, divided by the existing total area (s.f.) of walls, floor covering, and ceiling systems.

FT. DRUM		Goal
Requirements	<input type="checkbox"/> <i>Maintain 75%:</i> The project does not meet this requirement.	0
	<input type="checkbox"/> <i>Maintain 100%:</i> The project does not meet this requirement.	0
	<input type="checkbox"/> <i>Maintain 100% + 50% nonshell:</i> The project does not meet this requirement.	0
Action Needed	None.	
Suggested Certification Submittals	Submittal 1 (LEED)	<i>Maintain 75% (100%):</i> Provide pre-construction and post-construction plan and elevation drawings highlighting reused structure and shell elements. Include calculations demonstrating that 75% (100%) of the structure and shell was reused.
	Submittal 2 (LEED)	<i>Maintain 100% + 50% non-shell:</i> Provide pre-construction and post-construction drawings highlighting reused interior walls, floor coverings and ceilings. Include calculations demonstrating that 50% of the non-shell components were reused.

4.0 Materials and Resources (Continued)

4.C2 Construction Waste Management

Intent: Divert construction, demolition, and land clearing debris from landfill disposal. Redirect recyclable material back to the manufacturing process.

Requirement: Develop and implement a waste management plan, quantifying material diversion by weight:

- ☐ Recycle and/or salvage at least 50% (by weight) of construction, demolition, and land clearing waste. **1**
- ☐ Recycle and/or salvage an additional 25% (75% total by weight) of the construction, demolition, and land clearing debris. **1**

Technologies /Strategies: Develop and specify a waste management plan which meets requirements of the installation/base environmental and/or solid waste management plans that identifies licensed haulers and processors of recyclables; identifies markets for salvaged materials; employs deconstruction, salvage, and recycling strategies and processes, includes waste auditing; and documents the cost for recycling, salvaging, and reusing materials. Source reduction on the job site should be an integral part of the plan.

The plan should address recycling of corrugated cardboard, metals, concrete brick, asphalt, land clearing debris (if applicable), beverage containers, clean dimensional wood, plastic, glass, gypsum board, and carpet; evaluate the cost-effectiveness of recycling rigid insulation, engineered wood products and other materials; hazardous materials storage and management; and participation in manufacturers' "take-back" programs to the maximum extent possible. Refer to the LEED Reference Guide for guidelines and references that provide waste management plan development and implementation support including model bid specifications.

			Goal
FT. DRUM			
Requirements	<input type="checkbox"/> Construction Waste Management, Salvage or Recycle 50%:	The project does not meet this requirement.	0
	<input type="checkbox"/> Construction Waste Management, Salvage or Recycle 75%:	The project does not meet meet this requirement.	0
Action Needed	None.		
Suggested Certification Submittals	Submittal 1 (LEED)	Provide a copy of the Waste Management Plan for the project highlighting recycling and salvage requirements.	
	Submittal 2 (LEED)	Provide calculations on end-of-project recycling rates, salvage rates, and landfill rates demonstrating that 50% (75%) of construction wastes were recycled or salvaged.	

4.0 Materials and Resources (Continued)

4.C3 Resource Reuse

Intent: Extend the life cycle of targeted building materials, reducing environmental impacts related to materials manufacturing and transport.

Requirement: ☐ Specify salvaged or refurbished materials for 5% of building materials. **1**

☐ Specify salvaged or refurbished materials for 10% of building materials. **1**

Technologies /Strategies: Commonly salvaged building materials include wood flooring/ paneling/cabinets, doors and frames, mantels, iron work and decorative lighting fixtures, brick, masonry and heavy timbers. See the LEED Reference Guide for calculation tools and guidelines. Determine percentages in terms of dollar value using the following steps:

1. Calculate total dollars* (see exclusions) of the salvaged or refurbished material.
2. Calculate total dollars (see exclusions) of all building materials.
3. Divide Step 1 by Step 2 to determine the percentage.

Exclusions: In total dollar calculations, exclude; labor costs; all mechanical and electrical material and labor costs; and project overhead and fees. *If the cost of the salvaged or refurbished material is below market value, use replacement cost to estimate the material value, otherwise use actual cost to the project.

FT. DRUM		Goal
Requirements	<input type="checkbox"/> Resource Reuse, Specify 5%: The project does not meet this requirement.	0
	<input type="checkbox"/> Resource Reuse, Specify 10%: The project does not meet this requirement.	0
Action Needed	Include in specifications.	
Suggested Certification Submittals	Submittal 1 (LEED)	Provide specifications and contractor submittals highlighting salvaged and refurbished materials to use on the project.
	Submittal 2 (LEED)	Provide calculations demonstrating that (10%) of building materials were salvaged. Include the origin and cost for salvaged materials and the total cost for building materials.

4.0 Materials and Resources (Continued)

4.C4 Recycled Content

Intent: Increase demand for building products that have incorporated recycled content material, reducing the impacts resulting from extraction of new material.

- | | | |
|--------------|---|---|
| Requirement: | <input type="checkbox"/> Specify a minimum of 25% of building materials that contain in aggregate a minimum weighted average of 20% post-consumer recycled content material, OR, a minimum weighted average of 40% post-industrial recycled content material. | 1 |
| | <input type="checkbox"/> Specify an additional 25% (50% total) of building materials that contain in aggregate, a minimum weighted average of 20% post consumer recycled content material, OR, a minimum weighted average of 40% post-industrial recycled content material. | 1 |

Technologies /Strategies: Specify building materials containing recycled content for a fraction of total building materials. Select products and materials with supporting information from the AIA Resource Guide or the EPA Environmentally Preferable Purchasing (EPP) Program. Common building materials and products with recycled content include; wall, partition, and ceiling materials and systems; insulation; tiles and carpets; cement, concrete, and reinforcing metals; structural and framing steel. For products/materials not listed, selection should be made on the basis of EPP criterion and/or:

- Toxicity;
- Embodied energy;
- Production use of water, energy and ozone depleting substances (ODSs);
- Production limits on toxic emissions and effluents;
- Minimal, reusable or recycled/recyclable packaging;
- Impact on indoor environmental quality (IEQ);
- Installation that limits generation of waste;
- Materials that limit waste generation over their life;
- EPA guideline compliance; and
- Harvested on a sustainable yield basis.

See the LEED Reference Guide for a summary of the EPA guidelines and calculation methodology guidelines. Determine percentages in terms of dollar value using the following steps:

1. Calculate total dollars (see exclusions) of the material that contain recycled content.
2. Calculate total dollars (see exclusions) of all building materials.
3. Divide Step 1 by Step 2 to determine the percentage.

Exclusions: Labor costs; all mechanical and electrical material and labor costs; project overhead and fees)

		Goal
FT. DRUM		
Requirements	The project will meet this requirement.	
	<input type="checkbox"/> Specify a minimum of 25% of building materials that contain in aggregate a minimum weighted average of 20% post-consumer recycled content material, OR, a minimum weighted average of 40% post-industrial recycled content material.	1
	<input type="checkbox"/> Specify an additional 25% (50% total) of building materials that contain in aggregate, a minimum weighted average of 20% post consumer recycled content material, OR, a minimum weighted average of 40% post-industrial recycled content material.	0
Action Needed	Include in specifications.	
Suggested Certification Submittals	<div>Submittal 1 Provide specifications and contractor submittals highlighting recycled content materials.</div> <div>(LEED)</div> <div>Submittal 2 Provide a spreadsheet of all materials used on the project highlighting recycled content materials. Include all percentage of post-consumer and post-industrial recycled content for all recycled content materials, the costs of all materials for the project, and calculations demonstrating that 25% of building materials have the required recycled content.</div> <div>(LEED)</div>	

4.0 Materials and Resources (Continued)

4.C5 Local/Regional Materials

Intent: Increase demand for building products that are manufactured locally, reducing the environmental impacts resulting from transportation, and supporting the local economy.

- Requirement: ☐ Specify a minimum of 20% of building materials that are manufactured regionally within a radius of 500 miles. **1**
- ☐ Of these regionally manufactured materials, specify a minimum of 50% that are extracted, harvested, or recovered within 500 miles. **1**

Technologies /Strategies: Specify and install regionally extracted, harvested, and manufactured building materials. Contact the state and local waste management boards for information about regional building materials. See the LEED Reference Guide for calculation methodology guidelines. Determine percentages in terms of dollar value using the following steps:

1. Calculate total dollars (see exclusions) of material that is locally or regionally manufactured.
2. Calculate total dollars (see exclusions) of all building materials.
3. Divide Step 1 by Step 2 to determine the percentage.

Exclusions: Labor costs; all mechanical and electrical material and labor costs; project overhead and fees.

			Goal
FT. DRUM			
Requirements	<input type="checkbox"/> <i>20% Manufactured Locally:</i> The project will meet this requirement. There are many building manufacturers within a 500 mile radius of the project as the region is highly industrialized.		1
	<input type="checkbox"/> <i>Of 20% Above 50% Harvested Locally:</i> The project will meet this requirement as well.		1
Action Needed	Include in specifications.		
Suggested Certification Submittals	Submittal 1 (LEED)	<i>20% Manufactured Locally:</i> Provide specifications and contractor submittals highlighting local material installed.	
	Submittal 2 (LEED)	<i>20% Manufactured Locally:</i> Provide a spreadsheet of all materials used on the project highlighting locally manufactured materials. Include the location of the material manufacturer, the distance from the manufacturer to the project site, the costs of all materials for the project, and calculations demonstrating that 20% of building materials are manufactured within 500 miles of the project.	
	Submittal 3 (LEED)	<i>Of 20% Above 50% Harvested Locally:</i> provide specifications and contractor submittals highlighting local material installed.	
	Submittal 4 (LEED)	<i>Of 20% Above 50% Harvested Locally:</i> Provide a spreadsheet of all materials used on the project highlighting locally manufactured materials. Include the location of the material manufacturer, the distance from the manufacturer to the project site, the costs of all materials for the project, and calculations demonstrating that 20% of building materials are manufactured within 500 miles of the project.	
	Submittal 5 (LEED)	<i>Of 20% Above 50% Harvested Locally:</i> Provide manufacturer information on locally manufactured materials demonstrating that 50% of these materials were extracted, harvested, or recovered within 500 miles of the project.	

4.0 Materials and Resources (Continued)

4.C6 Rapidly Renewable Materials

Intent: Reduce the use and depletion of finite raw and long cycle renewable materials by replacing them with rapidly renewable materials.

Requirement: ☐ Specify rapidly renewable building materials for 5% of total building materials.

1

Technologies /Strategies: Rapidly renewable resources are those materials that substantially replenish them-selves faster than traditional extraction demand (e.g. planted and harvested in less than a 10 year cycle) and do not result in significant biodiversity loss, increase erosion, air quality impacts, and that are sustainably managed. See the LEED Reference Guide for calculation methodology guidelines. Determine percentages in terms of dollar value using the following steps:

1. Calculate total dollars (see exclusions) of materials that are considered to be rapidly renewable.
2. Calculate total dollars (see exclusions) of all building materials.
3. Divide Step 1 by Step 2 to determine the percentage.

Exclusions: Labor costs; all mechanical and electrical material and labor costs; project overhead and fees.

		Goal
FT. DRUM		
Requirements	The project does not meet this requirement.	0
Action Needed	None	
Suggested Certification Submittals	<p>Submittal 1 Provide written documentation from the manufacturer, declaring the rapidly renewable materials contained in the candidate products.</p> <p>(LEED)</p> <p>Submittal 2 Provide specification and contractor submittals highlighting rapidly renewable materials installed.</p> <p>(LEED)</p> <p>Submittal 3 Provide a spreadsheet of all materials used on the project highlighting rapidly renewable materials. Include manufacturer information, the cost of all materials for the project, and calculations demonstrating that 5% of building materials are rapidly renewable.</p> <p>(LEED)</p>	

4.0 Materials and Resources (Continued)

4.C7 Certified Wood

Intent: Encourage environmentally responsible forest management.

Requirement: ☐ Use a minimum of 50% of wood-based materials certified in accordance with the Forest Stewardship Council guidelines for wood building components including but not limited to framing, flooring, finishes, furnishings, and non-rented temporary construction applications such as bracing, concrete form work and pedestrian barriers. **1**

Technologies /Strategies: Refer to the Forest Stewardship Council guidelines for wood building components that qualify for compliance to the requirements and incorporate into material selection for the project.

Goal

FT. DRUM

Requirements ☐ Use a minimum of 50% of wood-based materials certified in accordance with the Forest Stewardship Council guidelines for wood building components including but not limited to framing, flooring, finishes, furnishings, and non-rented temporary construction applications such as bracing, concrete form work and pedestrian barriers. **1**

The project will meet this requirement.

Action Needed Include in specifications.

Suggested Certification Submittals Submittal 1 Provide wood certification documentation from the manufacturer declaring conformance with Forest Stewardship Council Guidelines for certified wood building components.
(LEED)

Submittal 2 Provide specifications and contractor submittals highlighting certified wood-based materials installed.
(LEED)

Submittal 3 Provide a spreadsheet of all wood-based materials used on the project highlighting certified wood-based materials. Include calculations demonstrating that 50% of wood-based materials are certified wood.
(LEED)

5.0 Indoor Environmental Quality (IEQ)

5.R1 Minimum IAQ Performance

Reqd.

Intent: Establish minimum IAQ performance to prevent the development of indoor air quality problems in buildings, maintaining the health and well being of the occupants.

Requirement: ☐ Meet the minimum requirements of voluntary consensus standard ASHRAE 62-1999, Ventilation for Acceptable Indoor Air Quality and approved Addenda.

Technologies /Strategies: Include proactive design details that will eliminate some of the common causes of indoor air quality problems in buildings. Introduce standards into the design process early. Incorporate references to targets in plans and specifications. Ensure ventilation system outdoor air capacity can meet standards in all modes of operation. Locate building outdoor air intakes (including operable windows) away from potential pollutants/contaminant sources such as sporulating plants (allergens), loading areas, building exhaust fans, cooling towers, sanitary vents, dumpsters, vehicular exhaust, and other sources. Include operational testing in the building commissioning report. Design cooling coil drain pans to ensure complete draining. Include measures to control and mitigate radon buildup in areas where it is prevalent. Limit humidity to a range that minimizes mold growth and promotes respiratory health.

FT. DRUM		Goal
Requirements	Provide letter from mechanical engineer re. compliance with ASHRAE 62.1999	Reqd.
Action Needed	See above.	
Suggested Certification Submittals	<p>Submittal 1 <i>Provide a letter from the mechanical engineer stating compliance with ASHRAE 62-1999.</i></p> <p>(LEED)</p> <p>Submittal 2 <i>Declare the ASHRAE 62-199 procedure employed in the IAQ analysis (Ventilating Rate Procedure or Indoor Air Quality Procedure) and include design criteria and assumptions.</i></p> <p>(LEED)</p>	

5.0 Indoor Environmental Quality (IEQ) (Continued)

5.R2 Environmental Tobacco Smoke (ETS) Control

Reqd.

Intent:	Prevent exposure of building occupants and systems to Environmental Tobacco Smoke (ETS).
Requirement:	<input type="checkbox"/> Zero exposure of nonsmokers to ETS by prohibition of smoking in the building, OR, by providing a designated smoking room designed to effectively contain, capture and remove ETS from the building. At a minimum, the smoking room shall be directly exhausted to the outdoors with no recirculation of ETS-containing air to the non-smoking area of the building, enclosed with impermeable structural deck-to-deck partitions and operated at a negative pressure compared with the surrounding spaces of at least 7 Pa (0.03 inches of water gauge). Performance of smoking rooms shall be verified using tracer gas testing methods as described in ASHRAE Standard 129-1997. Acceptable exposure in non-smoking areas is defined as less than 1% of the tracer gas concentration in the smoking room detectable in the adjoining non-smoking areas. Smoking room testing as described in the ASHRAE Standard 129-1997 is required in the contract documents and critical smoking facility systems testing results must be included in the building commissioning plan and report or as a separate document.
Technologies /Strategies:	Prohibit smoking in the building and/or provide designated smoking areas outside the building in locations where ETS cannot reenter the building or ventilation system and away from high building occupant or pedestrian traffic.

FT. DRUM		Goal
Requirements	Letter from building owner: no smoking.	Reqd.
Action Needed	Monitoring to be provided in all major spaces with centrally located equipment.	
Suggested Certification Submittals	Submittal 1 (LEED) <p>Provide a letter from the building owner verifying the building policy prohibiting smoking. Include site drawings highlighting designated outdoor smoking areas if applicable, OR Provide drawings and a narrative demonstrating that designated smoking rooms have ventilating systems independent of non-smoking building areas.</p>	
	Submittal 2 (LEED) <p>Provide a letter from the testing engineer stating compliance with ASHRAE 129-1997 for smoking areas. Include a narrative describing the sequence of operating and control of building ventilating systems and initial operation set point parameters.</p>	

5.0 Indoor Environmental Quality (IEQ) (Continued)

5.C1 IAQ Monitoring

Intent: Provide capacity for indoor air quality (IAQ) monitoring to sustain long term occupant health and comfort.

Requirement: ☐ Install a permanent carbon dioxide (CO₂) monitoring system that provides feedback on space ventilation performance in a form that affords operational adjustments, AND specify initial operational set point parameters that maintain indoor carbon dioxide levels no higher than outdoor levels by more than 530 parts per million at any time. **1**

Technologies /Strategies: Install an independent system or make CO₂ monitoring a function of the building automation system. Situate monitoring locations in areas of the building with high occupant densities and at the ends of the longest runs of the distribution ductwork. Specify that system operation manuals require calibration of all of the sensors per manufacturer recommendations but not less than one year. Include sensor and system operational testing and initial set point adjustment in the commissioning plan and report. Also consider periodic monitoring of carbon monoxide (CO), total volatile organic compounds (TVOCs), and particulates (including PM10).

FT. DRUM		Goal
Requirements	Provide drawings, cutsheets and narrative.	1
Action Needed	Monitoring to be provided in all major spaces with centrally located equipment.	
Suggested Certification Submittals	Submittal 1 (LEED)	Provide drawings, specifications and cut sheets highlighting the installed carbon dioxide monitoring system. Include a narrative describing the sequence of operation and control of building ventilation systems and initial operation set point parameters.

5.0 Indoor Environmental Quality (IEQ) (Continued)

5.C2 Increase Ventilation Effectiveness

Intent: Provide for the effective delivery and mixing of fresh air to building occupants to support their health, safety, and comfort.

Requirement: ☐ For mechanically ventilated buildings, design ventilation systems that result in an air change effectiveness (E) greater than or equal to 0.9 as determined by ASHRAE 129-1997. For naturally ventilated spaces demonstrate a distribution and laminar flow pattern that involves not less than 90% of the room or zone area in the direction of air flow for at least 95% of hours of occupancy. **1**

Technologies /Strategies: Employ architectural and HVAC design strategies to increase ventilation effectiveness and prevent short-circuiting of airflow delivery. Techniques available include use of displacement ventilation, low velocity, and laminar flow ventilation (under floor or near floor delivery) and natural ventilation. Operable windows with an architectural strategy for natural ventilation, cross ventilation, or stack effect can be appropriate options with study of inlet areas and locations. See the LEED Reference Guide for compliance methodology guidelines.

FT. DRUM		Goal
Requirements	Provide reports that air change is in compliance with ASHRAE 129-1997.	1
Action Needed	See above.	
Suggested Certification Submittals	<p>Submittal 1 For mechanically ventilated buildings, provide a report summarizing test results and calculations demonstrating that the designed building has an air-change effectiveness value of 0.9 or greater as determined by ASHRAE 129-1997, Appendix B. If E is less than 0.9, provide documentation indicating the corrected design ventilation rate (CDVR) used in the system design, OR For mechanically ventilated buildings, provide a design narrative that describes compliance with the recommended design approaches in ASHRAE Fundamentals chapter 31, Space Air Diffusion design for as described in the calculation details of this credit.</p> <p>Submittal 2 For naturally ventilated spaces, provide airflow simulation results including location of inlets, outlets, and flow patterns. Provide a narrative describing the sequence of the ventilation system and demonstrate that distribution and flow patterns in all naturally ventilated spaces involve at least 90% of the room or zone area in the direction of airflow for at least 95% of hours of occupancy.</p> <p>(LEED)</p>	

5.0 Indoor Environmental Quality (IEQ) (Continued)

5.C3 Construction IAQ Management Plan

Intent: Prevent indoor air quality problems resulting from the construction/renovation process, to sustain long term installer and occupant health and comfort.

Requirement: Develop and implement an Indoor Air Quality (IAQ) Management Plan for the construction and pre-occupancy phases of the building as follows:

- ☐ During construction meet or exceed the minimum requirements of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guideline for Occupied Buildings under Construction, 1995, AND protect stored on-site or installed absorptive materials from moisture damage, AND replace all filtration media immediately prior to occupancy (Filtration media shall have a Minimum Efficiency Reporting Value (MERV) of 13 as determined by ASHRAE 52.2-1999). 1
- ☐ Conduct a minimum two-week building flushout with new filtration media at 100% outside air after construction ends and prior to occupancy, OR, conduct a baseline indoor air quality testing procedure consistent with current EPA protocol for Environmental Requirements, Baseline IAQ and Materials, for the Research Triangle Park Campus, Section 01445. 1

Technologies /Strategies: Specify containment control strategies including protecting the HVAC system, controlling pollutant sources, interrupting pathways for contamination, enforcing proper housekeeping and coordinating schedules to minimize disruption. Specify the construction sequencing to install absorptive materials after the prescribed dry or cure time of wet finishes to minimize adverse impacts on indoor air quality. Materials directly exposed to moisture through precipitation, plumbing leaks, or condensation from the HVAC system are susceptible to microbial contamination. Absorptive materials to protect and sequence installation include; insulation, carpeting, ceiling tiles, and gypsum products. Appoint an IEQ Manager with owner's authority to inspect IEQ problems and require mitigation as necessary.

FT. DRUM		Goal
Requirements	<input type="checkbox"/> <i>During Construction:</i> <ol style="list-style-type: none"> Seal duct work Special insulation Require contractor to follow SMACNA IAQ guidelines. 	1
	<input type="checkbox"/> <i>After Construction:</i> <ol style="list-style-type: none"> 2 week flush-out 	1
Action Needed	Specifications to include requirements to meet SMACNA IAG Guidelines and Building Flush Out.	
Suggested Certification Submittals	Submittal 1 (LEED)	<i>During Construction:</i> Provide a copy of the Construction IAQ Management Plan highlighting the six requirements of SMACNA IAQ Guideline for Occupied Buildings under Construction, 1995, Chapter 3.
	Submittal 2 (LEED)	<i>During Construction:</i> Provide photographs of construction IAQ management measures such as protection of ducts and on-site stored or installed absorptive materials.
	Submittal 3 (LEED)	<i>During Construction:</i> Provide cut sheets of filtration media used during construction and installed immediately prior to occupancy with MERV values highlighted.
	Submittal 4 (LEED)	<i>After Construction:</i> Provide a letter from the architect or engineer describing building flushout procedures including actual dates of building flushout. OR Provide specifications and documentation demonstrating conformance with IAQ testing procedures and requirements as described in the referenced standard.

5.0 Indoor Environmental Quality (IEQ) (Continued)

5.C4 Low-Emitting Materials

Intent: Reduce the quantity of indoor air contaminants that are odorous or potentially irritating to provide installer and occupant health and comfort.

Requirement: Meet or exceed VOC limits for adhesives, sealants, paints, composite wood products, and carpet systems as follows:

- | | |
|---|---|
| <input type="checkbox"/> Adhesives must meet or exceed the VOC limits of South Coast Air Quality Management District Rule #1168 by, AND all sealants used as a filler must meet or exceed Bay Area Air Resources Board Reg. 8, Rule 51. | 1 |
| <input type="checkbox"/> Paints and coatings must meet or exceed the VOC and chemical component limits of Green Seal requirements. | 1 |
| <input type="checkbox"/> Carpet systems must meet or exceed the Carpet and Rug Institute Green Label Indoor Air Quality Test Program. | 1 |
| <input type="checkbox"/> Composite wood or agrifiber products must contain no added urea-formaldehyde resins. | 1 |

Technologies /Strategies: Evaluate and preferentially specify materials that are low emitting, non-irritating, nontoxic and chemically inert. Request and evaluate emissions test data from manufacturers for comparative products. Ensure that VOC limits are clearly stated in specifications, in General Conditions, or in each section where adhesives, sealants, coatings, carpets, and composite woods are addressed.

FT. DRUM		Goal
Requirements	<input type="checkbox"/> <i>Adhesives:</i> Include in specs; provide cutsheets.	1
	<input type="checkbox"/> <i>Paints:</i> Include in specs; provide cutsheets	1
	<input type="checkbox"/> <i>Carpet:</i> Not in project. The project does not meet this requirement.	0
	<input type="checkbox"/> <i>Composite Wood:</i> No particle board or plastic laminate in cabinets and closets. Use plywood.	1
Action Needed	Specifications to outline low -emitting materials to be used on job.	
Suggested Certification Submittals	Submittal 1 (LEED)	<i>Adhesives:</i> Provide a cut sheet and a Material Safety Data Sheet (MSDS) for each adhesive used in the building highlighting VOC limits.
	Submittal 2 (LEED)	<i>Paints:</i> Provide a cut sheet and a Material Safety Data Sheet (MSDS) for each paint or coating used in the building highlighting VOC limits and chemical component limits.
	Submittal 3 (LEED)	<i>Carpet:</i> Provide a cut sheet and a Material Safety Data Sheet (MSDS) for each carpet product used in the building highlighting VOC limits.
	Submittal 4 (LEED)	<i>Composite Wood:</i> Provide a cut sheet and a Material Safety Data Sheet (MSDS) for each composite wood or agrifiber product used in the building highlighting urea-formaldehyde resin limits

5.0 Indoor Environmental Quality (IEQ) (Continued)

5.C5 Indoor Chemical and Pollutant Source Control

Intent: Avoid exposure of building occupants to potentially hazardous chemicals that adversely impact air quality.

Requirement: ☐ Design to minimize cross-contamination of regularly occupied areas by chemical pollutants: **1**

- Employ permanent entryway systems (grills, grates, etc.) to capture dirt, particulates, etc. from entering the building at all high volume entryways, AND provide areas with structural deck to deck partitions with separate outside exhausting, no air recirculation and negative pressure where chemical use occurs (including housekeeping areas and copying/print rooms), AND provide drains plumbed for appropriate disposal of liquid waste in spaces where water and chemical concentrate mixing occurs.

Technologies /Strategies: Design to physically isolate activities associated with chemical contaminants from other locations in the building, providing dedicated systems to contain and remove chemical pollutants from source emitters at source locations. Applicable measures include eliminating or isolating high hazard areas; designing all housekeeping chemical storage and mixing areas (central storage facilities and janitors closets) to allow for secure product storage; designing copy/fax/printer/printing rooms with structural deck to deck partitions and dedicated exhaust ventilation systems; and including permanent architectural entryway system(s) to catch and hold particles to keep them from entering and contaminating the building interior.

Consider utilization of EPA registered anti-microbial treatments in carpet, textile or vinyl wall coverings, ceiling tiles or paints where microbial contamination is a concern. Utilize "breathable" wall finishes where circumstances require, to reduce moisture build-up and prevent microbial contamination. Minimize selection of fibrous materials, e.g. insulation, carpet and padding and flexible fabrics, whose exposed surfaces when exposed to the air stream or occupied space can contribute significant emissions and absorb and re-emit other contaminants over time.

FT. DRUM		Goal
Requirements	Project does not meet this requirement.	0
Action Needed	None.	
Suggested Certification Submittals	<p>Submittal 1 Provide drawings and cut sheets highlighting entryway systems, including locations of entryways in the building.</p> <p>(LEED)</p> <p>Submittal 2 Provide a narrative and drawings highlighting the deck-to-deck physical separation and independent ventilation system of chemical use areas and copy rooms.</p> <p>(LEED)</p> <p>Submittal 3 Provide a narrative and drawings highlighting the plumbing system employed in chemical mixing areas.</p> <p>(LEED)</p>	

5.0 Indoor Environmental Quality (IEQ) (Continued)

5.C6 Controllability of Systems

Intent: Provide a high level of individual occupant control of thermal, ventilation, and lighting systems to support optimum health, productivity, and comfort conditions.

- | | | |
|--------------|---|----------|
| Requirement: | <input type="checkbox"/> Provide a minimum of one operable window and one lighting control zone per 200 s.f. for all occupied areas within 15 feet of the perimeter wall. | 1 |
| | <input type="checkbox"/> Provide controls for each individual for airflow, temperature, and lighting for 50% of the non perimeter, regularly occupied areas. | 1 |

Technologies /Strategies: Provide individual or integrated controls systems that control lighting, airflow, and temperature in individual rooms and/or work areas. Consider combinations of ambient and task lighting control and operable windows for perimeter and VAV systems for non perimeter with a 1:1: 2 terminal box to controller to occupant ratio.

FT. DRUM		Goal
Requirements	<input type="checkbox"/> <i>Operable Window:</i> Project will meet this requirement.	1
	<input type="checkbox"/> <i>Individual Controls:</i> Project will meet this requirement.	0
Action Needed	Suggested resolution to meet requirements:	
	Interior and exterior lighting to meet the following: <ul style="list-style-type: none"> Utilize programmable monitoring/controls and occupancy sensors to reduce the amount of lighting used in the facility. Reduce light levels or turnoff lights when area not in use. Put occupancy sensors in rooms that are frequently not in use. Infrared occupancy sensors in offices, administration areas, conference rooms. Use ultrasonic occupancy sensors in restrooms and locker rooms. Install programmable monitoring and control systems that allow the user to turn off lights in specific areas during times where it is know that they are occupied. Install task light at specific locations to reduce overall room fc requirements. Put lights in bay areas in zones so areas that are not in use can be turned off. Install energy efficient fixtures Exterior lighting can be controlled with timers to coordinate with VMF work shifts and reduce the amount of light required at night during non-working hours. 	
Suggested Certification Submittals	Submittal 1 (LEED)	<i>Operable Window:</i> For perimeter regularly occupied areas, provide drawings and cut sheets highlighting operable windows and lighting controls for perimeter areas of the building. Include calculations summarizing the total perimeter occupied area and number of operable windows and lighting controls.
	Submittal 2 (LEED)	<i>Individual Controls:</i> For non-perimeter regularly occupied areas, provide drawings and cut sheets highlighting airflow, temperature, and lighting controls. Include calculations summarizing the total non-perimeter occupied area, number of occupants, and number of airflow, temperature and lighting controls.

5.0 Indoor Environmental Quality (IEQ) (Continued)

5.C7 Thermal Comfort

Intent: Provide for a thermally comfortable environment that supports the productive and healthy performance of the building occupants.

- | | | |
|--------------|---|---|
| Requirement: | <input type="checkbox"/> Comply with ASHRAE Standard 55-1992, Addenda 1995 for thermal comfort standards including humidity control within established ranges per climate zone. | 1 |
| | <input type="checkbox"/> Install a permanent temperature and humidity monitoring system configured to provide operators control over thermal comfort performance and effectiveness of humidification and/or dehumidification systems in the building. | 1 |

Technologies /Strategies: Integrated envelope and HVAC system design strategies that achieve thermal comfort conditions based on mean radiant temperature, local air velocity, relative humidity, and air temperature. Install and maintain a temperature and humidity monitoring system for key areas of the building (i.e., at the perimeter, and spaces provided with humidity control). This function can be satisfied by the building automation system. Specify in system operation manuals that all sensors require quarterly calibration. Include criteria verification and system operation in commissioning plan and report.

FT. DRUM		Goal
Requirements	<input type="checkbox"/> <i>Comply with ASHRAE 55-1992:</i> The project does not meet this requirement.	0
	<input type="checkbox"/> <i>Permanent Monitoring System:</i> The project does not meet this requirement.	0
Action Needed	None	
Suggested Certification Submittals	Submittal 1 (LEED)	<i>Comply with ASHRAE 55-1992:</i> Provide a letter from the mechanical engineer confirming that the project complies with ASHRAE Standard 55-1992, Addenda 1995. Include design criteria and assumptions for thermal comfort including temperature, humidity, and air movement ranges.
	Submittal 2 (LEED)	<i>Permanent Monitoring System:</i> Provide drawings, specifications and cut sheets highlighting the installed permanent temperature und humidity monitoring system. Include a narrative describing measurement points and operator interface.

5.0 Indoor Environmental Quality (IEQ) (Continued)

5.C8 Daylight and Views

Intent: Provide a connection between indoor spaces and the outdoor environment through the introduction of sunlight and views into the occupied areas of the building.

- Requirement:
- ☐ Achieve a minimum Daylight Factor of 2% (excluding all direct sunlight penetration) in 75% of all space occupied for critical visual tasks, not including copy rooms, storage areas, mechanical, laundry, and other low occupancy support areas. Exceptions include those spaces where tasks would be hindered by the use of daylight or where accomplishing the specific tasks within a space would be enhanced by the direct penetration of sunlight. **1**
 - ☐ Direct line of sight to vision glazing from 90% of all regularly occupied spaces, not including copy rooms, storage areas, mechanical, laundry, and other low occupancy support areas. **1**

Technologies /Strategies: Implement design strategies to provide access to daylight and views to the outdoors in a glare-free way using exterior sun shading, interior light shelves, and /or window treatments. Orient buildings to maximize daylighting options. Consider shallow or narrow building footprints. Employ courtyards, atriums, clerestory windows, skylights, and light shelves to achieve daylight penetration (from other than direct effect or direct rays from the sun) deep into regularly occupied areas of the building.

FT. DRUM		Goal
Requirements	<input type="checkbox"/> <i>Diffuse Sunlight to 75%:</i> The project does not meet this requirement.	0
	<input type="checkbox"/> <i>Direct Line of Sight to 90%:</i> Project meets this requirement.	1
Action Needed	Provide architectural plans with window locations.	
Suggested Certification Submittals	Submittal 1 (LEED)	<i>Diffuse Sunlight to 75%:</i> Provide drawings with a narrative highlighting critical visual task areas and typical rooms sections highlighting shading devices for direct sun control.
	Submittal 2 (LEED)	<i>Diffuse Sunlight to 75%:</i> Include area calculations defining the daylight zone and daylight prediction calculations demonstrating a minimum Daylight Factor of 2% in these areas, OR Include area calculations defining the daylight simulation results demonstrating a minimum Daylight Factor of 2% in these areas.
	Submittal 3 (LEED)	<i>Direct Line of Sight to 90%:</i> Provide drawings and a narrative highlighting direct line of sight zone. Include calculations demonstrating that 90% of these zones have direct lines of sight to perimeter glazing.

5.0 Indoor Environmental Quality (IEQ) (Continued)

5.C9 Acoustic Environment /Noise Control

Intent: Provide appropriate acoustic conditions for user privacy and comfort.

Requirement: ☐ Minimize environmental noise through appropriate use of insulation, sound-absorbing materials and noise source isolation. **1**

Technologies /Strategies: Evaluate each occupied environment and determine the appropriate layout, materials and furnishings design.

FT. DRUM		Goal
Requirements	<input type="checkbox"/> <i>Minimize environmental noise through appropriate use of insulation, sound-absorbing materials and noise source isolation.</i>	1
Action Needed	All areas to be designed with acceptable noise levels for the purpose of that area.	
Suggested Certification Submittals	Submittal 1 (LEED)	Floor plan, specifications, and cut sheets showing locations and product data for sound insulation, sound-absorbing materials, and noise source isolation measures.

5.0 Indoor Environmental Quality (IEQ) (Continued)

5.C10 Facility In-Use IAQ Management Plan

Intent: Insure the effective management of facility air quality during its life.

Requirement: ☐ Perform all of the following: 1

- Develop an air quality action plan to include scheduled HVAC system cleaning.
- Develop an air quality action plan to include education of occupants and facility managers on indoor pollutants and their roles in preventing them.
- Develop an air quality action plan to include permanent monitoring of supply and return air, and ambient air at the fresh air intake, for carbon monoxide (CO), carbon dioxide (CO₂), total volatile organic compounds (TVOCs), and particulates (including PM₁₀).

Technologies /Strategies: Provide action plan for periodic system maintenance, monitoring, occupant/manager training.

FT. DRUM		Goal
Requirements	Project does not meet the requirements, as no permanent monitoring will be provided for CO, CO ₂ , TOVCs and particulates.	0
Action Needed	None.	
Suggested Certification Submittals	Submittal 1 (LEED) Provide written air quality action plan, including schedules, occupant education dates, and a description of permanent monitoring installations and procedures.	

6.C1**Holistic Delivery of Facility**

Intent:

Encourage a facility delivery process that actively engages all stakeholders in the design process to deliver a facility that meets all functional requirements while effectively optimizing tradeoffs among sustainability, first costs, life cycle costs and mission requirements.

Requirement:

- | | |
|---|----------|
| <input type="checkbox"/> Choose team leaders that are experienced in holistic delivery of facilities. | 1 |
| <input type="checkbox"/> Train the entire team in the holistic delivery process. The team must include all stakeholders in the facility delivery, including the users, the contracting staff, the construction representatives, project manager, and design/engineering team members. | 1 |
| <input type="checkbox"/> Identify project goals and metrics. | 1 |
| <input type="checkbox"/> Plan and execute charrettes with team members at critical phases of the facility delivery. | 1 |
| <input type="checkbox"/> Identify and resolve tradeoffs among sustainability, first costs, life cycle costs and mission requirements through charrettes and other collaborative processes. | 2 |
| <input type="checkbox"/> Document required results for each phase of project deliverables that achieve the project goals and are measurable throughout the facility life span. | 1 |

Technologies /Strategies:

Develop performance specifications or choose competitive range of products that meet environmental criteria.

Use automated modeling and analysis tools to assess site and facility design alternatives.

Conduct life-cycle cost analysis (LCCA) in the design process according to the Federal Facilities Council Technical Report, Sustainable Federal Facilities: A Guide To Integrating Value Engineering, Life Cycle Costing, and Sustainable Development, FFC # 142, 2000.

Conduct a full ecological assessment to include soil quality, water resources and flows, vegetation and trees, wildlife habitats and corridors, wetlands, and ecologically sensitive areas to identify the least sensitive site areas for development. Evaluate space utilization/functions to reduce overall space requirements, considering networking, flextime, flexi-place, dual-use, and other strategies to reduce space requirements/optimize facility size.

FT. DRUM		Goal
Requirements	<input type="checkbox"/> <i>Experienced team leaders:</i> Does not apply.	0
	<input type="checkbox"/> <i>Train the entire team:</i> Does not apply.	0
	<input type="checkbox"/> <i>Identify project goals and metrics:</i> Does not apply.	0
	<input type="checkbox"/> <i>Charrettes with team members at critical phases:</i> Does not apply.	0
	<input type="checkbox"/> <i>Identify and resolve tradeoffs:</i> Does not apply.	0
	<input type="checkbox"/> <i>Document required results:</i> Does not apply.	0
Action Needed	None.	
Suggested Certification Submittals	Submittal 1	<i>Experienced team leaders:</i> Description of project leader's experience with minimum of one previous project certified by SPIrIT.
	Submittal 2	<i>Train the entire team:</i> Sign-in sheet showing attendance of representatives of project team at either a SPIrIT charrette or SPIrIT training workshop.
	Submittal 3	<i>Identify project goals and metrics:</i> Written statement of project goals and metrics, dated no later than 100% Schematic Design (early implementers: 50% Design Development).
	Submittal 4	<i>Charrettes with team members at critical phases:</i> Summary page of a minimum of 2 Charrette reports.

- Submittal 5 *Identify and resolve tradeoffs:* Points summary page of charrette report establishing which credit points have been agreed upon as feasible.
- Submittal 6 *Identify and resolve tradeoffs:* Summary of life-cycle cost analysis (LCCA) according to the Federal Facilities Council Technical Report, Sustainable Federal Facilities: A Guide To Integrating Value Engineering, Life Cycle Costing, and Sustainable Development, FFC # 142, 2000.
- Submittal 7 *Document required results:* Summary of report with Draft Submittals for SPiRiT, Summary of report with Final Submittals for SPiRiT.

7.C1	<u>Operation and Maintenance</u>	
Intent:	Encourage the development of a facility delivery process that enhances efficient operation and maintenance of the facility.	
Requirement:	<input type="checkbox"/> Develop a facility operations and maintenance program to include: <ul style="list-style-type: none"> ▪ Commissioning instructions for all facility systems. ▪ Comprehensive facility operations and maintenance instructions for system operation, performance verification procedures and results, an equipment inventory, warrantee information, and recommended maintenance schedule. The instructions should include a comprehensive, preventive maintenance program to keep all facility systems functioning as designed. ▪ A periodic training program for occupants, facilities managers, and maintenance staff in all facility operations and maintenance activities. ▪ Instructions on sustainable cleaning and pest control practices. ▪ Develop a comprehensive site/facility recycling/waste management plan. 	2
	<input type="checkbox"/> Provide surfaces, furnishings, and equipment that are appropriately durable, according to life cycle cost analysis.	1
Technologies /Strategies:	<p>Maintain facility elements, systems and subsystems on a routine maintenance schedule to ensure integrity and longevity.</p> <p>Perform scheduled cleaning and maintenance activities with nontoxic environmentally preferable cleaning products and procedures. Keep air ducts clean and free of microorganisms through a structured program of preventive maintenance. Clean lighting systems following a regular maintenance schedule to ensure optimum light output and energy efficiency.</p> <p>Use pesticides and herbicides sparingly and only when necessary with preference to natural methods and materials over poisons and toxic agents.</p> <p>Use automated monitors and controls for energy, water, waste, temperature, moisture, and ventilation monitors and controls. Turn off the lights, computers, computer monitors, and equipment when not in use. Enable power-down features on office equipment.</p>	

	FT. DRUM	Goal
Requirements	<input type="checkbox"/> <i>Facility operations and maintenance program:</i> Instructions for facility operations are part of the typical procedures on the base.	2
	<input type="checkbox"/> <i>Durable surfaces, furnishings, and equipment:</i> Products have been and will be selected to withstand douse.	1
Action Needed	Include in specifications.	
Suggested Certification Submittals	Submittal 1 <i>Facility operations and maintenance program:</i> Submit written facility operations and maintenance program and training schedule with training participants. (LEED)	
	Submittal 2 <i>Durable surfaces, furnishings, and equipment:</i> Provide life cycle cost statements or for interior surfaces. Provide written purchasing guidelines for furnishings and office equipment.	

7.0

Current Mission (Continued)

7.C2

Soldier and Workforce Productivity and Retention

Intent:

Provide a high-quality, functional, healthy and safe work environment to promote soldier and workforce productivity and retention.

Requirement:

- | | |
|--|----------|
| <input type="checkbox"/> Provide a high quality indoor environment to enhance user/occupant quality of life (QOL). | 1 |
| <input type="checkbox"/> Provide a highly functional work environment to promote user/occupant work productivity. | 1 |
| <input type="checkbox"/> Provide a healthy and safe work environment to sustain QOL and productivity. | 1 |

Technologies /Strategies:

Use a registered/certified interior designer to provide stimulating interior environments with pleasant colors, surface treatments, room proportions and ceiling heights, external views, natural lighting, and quality detailing for interior furnishings, equipment, materials and finishes. Use IES standards to provide light to occupied space with variations in level, comfortable contrasts, natural color rendition, natural/man-made, and adequate controls to optimize light aesthetic qualities. Provide occupant control of individual work areas configuration, and lighting, thermal and ventilation systems.

Collaborate with end users to identify functional and technical requirements and to perform adjacency studies. Configure occupied space to address the specific workers/occupants functions and activities that will be carried out there. Meet TI 800-01 Design Guide requirements. Design and configure occupied space, and select furniture and equipment using human ergonomics. Identify existing user amenities, such as dining, recreation, socialization, shopping and child care facilities. Identify what amenities should be incorporated into the project or provided in the future, nearby facility. Provide ventilation air in sufficient volume free from natural and man made contaminants.

FT. DRUM		Goal
Requirements	<input type="checkbox"/> <i>High quality indoor environment:</i> Project does not meet this requirement.	0
	<input type="checkbox"/> <i>Highly functional work environment:</i> Project does not meet this requirement	0
	<input type="checkbox"/> <i>Healthy and safe work environment:</i> Project does not meet this requirement.	0
Action Needed	None.	
Suggested Certification Submittals	Submittal 1	<i>High quality indoor environment:</i> Statement of lighting designers that IES standards are met OR statement of architect or interior designer describing interior design intent with color copy of interior finish sample board
	Submittal 2	<i>Highly functional work environment:</i> Statement of interior designer or architect describing how design and layout of furnishings exceed typical standards by addressing ergonomic needs
	Submittal 3	<i>Healthy and safe work environment:</i> Statement listing a minimum of two amenities with their capacities and schedule, and describing who has access to these facilities and how the occupants of the project have access to those amenities.

8.C1 Functional Life of Facility and Supporting Systems

Intent:	Assess the functional life of a facility and its supporting systems to optimize the infrastructure investment.		
Requirement:	<input type="checkbox"/> Identify how long the designed function is likely to occupy the current facility.		1
	<input type="checkbox"/> Identify how long the envelope, structure, HVAC, plumbing, communications, electrical, and other systems are likely to last before requiring replacement or upgrade. Consider economic, functional and physical obsolescence.		1
Technologies /Strategies:	<p>Assess the typical or likely lifespan of the function(s) to be accommodated to forecast eventual adaptation to a different use(s). Assess the life spans of the various building systems/components to forecast their revision/replacement during the facility lifespan and design in a manner that facilitates revision/replacement.</p> <p>Consider the life span of the weapon systems, doctrines, or other programs supported by the facility.</p> <p>Use life cycle data and other sources to identify the life span of the embodied systems.</p>		

	FT. DRUM		Goal
Requirements	<input type="checkbox"/> Identify how long the designed function is likely to occupy the current facility.		1
	<input type="checkbox"/> Identify how long the envelope, structure, HVAC, plumbing, communications, electrical, and other systems are likely to last before requiring replacement or upgrade. Consider economic, functional and physical obsolescence.		1
Action Needed	Reports will be submitted.		
Suggested Certification Submittals	Submittal 1	<i>Function in current facility:</i> Provide statement showing expected life-span of designed use, and describing how life-span has been determined.	
	Submittal 2	<i>Envelope and systems lifespan:</i> Describe how the design has addressed the life-span of the facility through the selection of the envelope and major systems, to minimize revisions and replacement within the life-span of the designed use unless future environmental benefits are anticipated by their revision and replacement.	

8.0 Future Missions (Continued)

8.C2 Adaptation, Renewal and Future Uses

Intent:	Encourage facility design that is responsive to change over time to maximize accommodation of future uses without creating waste and insuring maximum useful life of products.		
Requirement:	<input type="checkbox"/>	Identify possible future uses for the facility; consider alternatives that expand the list of possible future uses. AND Design the building to accommodate as wide a range of future uses, as practical. AND Design the installation of building systems to accommodate foreseeable change with a minimum amount of disruption, cost, and additional materials.	1
	<input type="checkbox"/>	Build the smallest facility necessary to meet current mission functional requirements, using the most efficient shape and form, while taking into consideration expansion capabilities and potential future mission requirements. AND Design the facility for recycling of materials and systems.	1
Technologies /Strategies:	<p>Create durable, long-lasting and adaptable facility shell and structural system. Create an adaptable, flexible facility design using open planning, service corridors, interstitial space, access floors, demountable walls/partitions, modular furniture and other adaptable space configuration/utilization strategies.</p> <p>Select materials that are recyclable, avoiding composite materials, such as reinforced plastics and carpet fibers and backing. Consider selecting materials and labeling construction materials with identification information to facilitate recycling. Use pre-cut/pre-fabricated materials and use standard lengths and sizes (dimensional modularity) in design. Design facility systems and subsystems for reconfiguration and/or disassembly/recycling using reversible/reusable connectors.</p>		

FT. DRUM			Goal
Requirements	<input type="checkbox"/>	<i>Possible future uses:</i> The facility can be reused/modified for maintenance of other vehicles (track type, etc.) or warehouse storage, or full-service & repairs.	1
	<input type="checkbox"/>	<i>Smallest facility and design for recycling:</i> The project went through a thorough programming and charrette phase that minimized the facility's size to meet current mission functional requirements with consideration for expansion.	1
Action Needed			
Suggested Certification Submittals	Submittal 1	<i>Possible future uses:</i> Provide statement listing three possible future uses for the facility; and describe how the project design facilitates design adaptations for each future use.	
	Submittal 2	<i>Smallest facility and design for recycling:</i> Provide a list of programmed spaces, including circulation areas, accounting for the total net building area without contingency. Describe how future expansion needs might be handled.	
	Submittal 3	<i>Smallest facility and design for recycling:</i> Provide a statement and calculations showing how a minimum of 10% of building materials will allow disassembly and reuse, not counting windows.	

Facility Points Summary

1.0	Sustainable Sites (S)	Score	6	Max 20
1.R1	<input type="checkbox"/> Erosion, Sedimentation and Water Quality Control	x	[Required]	
1.C1	<input type="checkbox"/> Site Selection	2	2	
1.C2	<input type="checkbox"/> Installation/Base Redevelopment	1	2	
1.C3	<input type="checkbox"/> Brownfield Redevelopment	0	1	
1.C4	<input type="checkbox"/> Alternative Transportation	1	4	
1.C5	<input type="checkbox"/> Reduced Site Disturbance	0	2	
1.C6	<input type="checkbox"/> Stormwater Management	0	2	
1.C7	<input type="checkbox"/> Landscape and Exterior Design to Reduce Heat Islands	0	2	
1.C8	<input type="checkbox"/> Light Pollution Reduction	1	1	
1.C9	<input type="checkbox"/> Optimize Site Features	0	1	
1.C10	<input type="checkbox"/> Facility Impact	1	2	
1.C11	<input type="checkbox"/> Site Ecology	0	1	
2.0	Water Efficiency (W)	Score	1	Max 5
2.C1	<input type="checkbox"/> Water Efficient Landscaping	1	2	
2.C2	<input type="checkbox"/> Innovative Wastewater Technologies	0	1	
2.C3	<input type="checkbox"/> Water Use Reduction	0	2	
3.0	Energy and Atmosphere (E)	Score	0	Max 28
3.R1	<input type="checkbox"/> Fundamental Building Systems Commissioning	x	[Required]	
3.R2	<input type="checkbox"/> Minimum Energy Performance	x	[Required]	
3.R3	<input type="checkbox"/> CFC Reduction in HVAC&R Equipment	x	[Required]	
3.C1	<input type="checkbox"/> Optimize Energy Performance	0	20	
3.C2	<input type="checkbox"/> Renewable Energy	0	4	
3.C3	<input type="checkbox"/> Additional Commissioning	0	1	
3.C4	<input type="checkbox"/> <<Deleted>>	x		
3.C5	<input type="checkbox"/> Measurement and Verification	0	1	
3.C6	<input type="checkbox"/> Green Power	0	1	
3.C7	<input type="checkbox"/> Distributed Generation	0	1	
4.0	Materials and Resources (M)	Score	4	Max 13
4.R1	<input type="checkbox"/> Storage & Collection of Recyclables	x	[Required]	
4.C1	<input type="checkbox"/> Building Reuse	0	3	
4.C2	<input type="checkbox"/> Construction Waste Management	0	2	
4.C3	<input type="checkbox"/> Resource Reuse	0	2	
4.C4	<input type="checkbox"/> Recycled Content	1	2	
4.C5	<input type="checkbox"/> Local/Regional Materials	2	2	
4.C6	<input type="checkbox"/> Rapidly Renewable Materials	0	1	
4.C7	<input type="checkbox"/> Certified Wood	1	1	
5.0	Indoor Environmental Quality (IEQ) [Q]	Score	10	Max 17
5.R1	<input type="checkbox"/> Minimum IAQ Performance	x	[Required]	
5.R2	<input type="checkbox"/> Environmental Tobacco Smoke (ETS) Control	x	[Required]	
5.C1	<input type="checkbox"/> IAQ Monitoring	1	1	
5.C2	<input type="checkbox"/> Increase Ventilation Effectiveness	1	1	
5.C3	<input type="checkbox"/> Construction IAQ Management Plan	2	2	
5.C4	<input type="checkbox"/> Low -Emitting Materials	3	4	
5.C5	<input type="checkbox"/> Indoor Chemical and Pollutant Source Control	0	1	
5.C6	<input type="checkbox"/> Controllability of Systems	1	2	
5.C7	<input type="checkbox"/> Thermal Comfort	0	2	
5.C8	<input type="checkbox"/> Daylight and Views	1	2	
5.C9	<input type="checkbox"/> Acoustic Environment /Noise Control	1	1	
5.C10	<input type="checkbox"/> Facility In-Use IAQ Management Plan	0	1	

Maximum Points

6.C1	<input type="checkbox"/> Holistic Delivery of Facility	0	7
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7.C1	<input type="checkbox"/> Operation and Maintenance	3	3
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7.C2	<input type="checkbox"/> Soldier and Workforce Productivity and Retention	0	3
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8.C1	❑ Functional Life of Facility and Supporting Systems	2	2
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8.C2	❑	Adaptation, Renewal and Future Uses	2	2
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Total Score	28	Max 100
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SPIRiT Sustainable Project Certification Levels

SPiRiT Bronze	25 to 34 Points
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SPiRiT Silver	35 to 49 Points
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SPiRiT Gold		50 to 74 Points
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SPiRiT Platinum	75 to 100 Points
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Project Points of Contact

[illegible]

SPIRiT Comment Sheet

Please forward any comments that you may have on this Sustainable Project Rating Tool, preferably by Email, to:

Mr. Harry Goradia
U. S. Army Corps of Engineers
ATTN: CEMP-ET
7701 Telegraph Road
Alexandria, VA 22315-3862
Phone 703-428-6460
FAX 703-428-7903
Email harry.goradia@hq02.usace.army.mil

SPIRiT Para.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



PRE-PROPOSAL CONFERENCE

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE **MAINTENANCE FACILITY**

FT DRUM, NEW YORK

10 MAY 02



AGENDA

- | | |
|-------------|---|
| 1000 | Introductions (Please Sign-In) |
| 1005 | Explanation of COE Design/Build Process |
| 1015 | Description of the Project |
| 1030 | Submission Requirements/Rating
Definitions |
| 1045 | Submittal of Questions |
| 1130 | Site Visit |
| 1200 | <u>Return to “Commons” for Lunch</u> |
| 1300 | Answer Period |



RFP Overview

DACA51-02-R-0008 consists of:

- Sections 00100, 00110, 00120, 00600, 00700, 00800 and 00900
- Performance & Prescriptive Specifications and Attachments
- Reference Drawings

Government will evaluate proposals

(RFP Compliance, Cost Proposal, and Technical Proposal)

Timely Submission of Proposal is Mandatory



Amendments

AM 1:

- Provided time and location of Pre proposal conference
- Section 00901 Appendix A – New York District Manual Of Standard Procedures
- **SECTION 00800 revises paragraph (a) 5 to allow Construction of Site Work and Utility Installation may be started as soon as that part of the design is completed and approved.**



Key Dates

- Proposal Due Date: 30 MAY 02
- Award: NLT 09 SEPTEMBER 02
- Completion: 913 days after NTP



BEST VALUE

- The Government intends to award the contract to the offeror offering the best value considering both technical and price in accordance with the criteria in the RFP.
- Evaluation factors are listed in the solicitation.
- Trade-Offs are permitted.





AVIATION BRIGADE VMF **Design Build**

CONTRACTOR MAY BE:

- Construction contractor with subcontracted AE services
- Joint venture of AE firm and construction contractor
- AE firm with subcontracted construction contractor
- Design build firm with full AE and construction capabilities
- Other combinations providing all services.

Responsibilities

- Design-build contractor responsible for designing to budget or faced with paying the difference from own pocket.
- Government has minimal role in design of project.



Competitive Range

The competitive range consists of proposals that are technically acceptable and may or may not include borderline proposals that are capable of being made acceptable. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals (FAR 52.215-1).



Discussions

- Government reserves the right to award the contract without discussions.
- If held, they will be conducted with each offeror within the competitive range.
- Discuss deficiencies that can be corrected in order to be in compliance with the RFP



Proposal Revisions

- At conclusion of discussions, if held, all offerors still within the competitive range have the opportunity to submit a final revised proposal.
- Final proposal revisions must be in writing and received by the specified date.



Contract

- Contract will be firm fixed price
- Contract consists of:
 - RFP Requirements
 - Contractor's Proposal
- Order-of-Precedence:
 1. "Betterments" in Contractor's Proposal
 2. RFP Provisions
 3. Contractor's Proposal
 4. Design Products



Project Overview

- Project includes all work required to design and construct the Aviation Brigade Vehicle Maintenance Facilities.
- One contract will be awarded.
- Price includes design and construction (target ceiling \$28 M).
- Construction of Site Work and Utility Installation is allowed as soon as that part of the design is complete and approved.
- Contractor is responsible for the total project, including warranty of the design and the facility.
- The only submittals requiring government “approval” are as stated in the RFP. All other submittals are made for government review for conformance.



Function

- Provide Maintenance Facilities for various types of military vehicles
- Provide Storage Facilities for Equipment and Lubricants
- Provide Administrative Areas for personnel usage.



Project Description

- **The project will include work bays and administrative areas.**
- **Administrative areas will be adjacent to their respective work bays.**
- **Project includes organizational equipment storage buildings and petroleum, oils, and lubricants (POL) storage buildings; and organizational parking.**
- **Supporting facilities include storm sewers, utilities, electric service, fire protection and alarm systems, paving, walks, security fencing and lighting, information systems, and site improvements**



Submission Requirement (Section: 00110)

- **200 pages or less, due 30 May 02 at 1100 hrs**
- **Volume I (Technical Proposal)**
 - **1. Recent Experience in Design and Construction**
 - **2. Proposed Engineering Systems**
 - **3. Past Performance, Design and Construction**
 - » **Sub Factor A – Contractor and Designers Past Relationship**
 - **4. Offeror's Qualifications for Design Team**
 - **5. Performance Schedule**
 - **6. Construction Quality Control Plan**
 - **7. Small Business Subcontracting Effort**
 - **8. Contractors submission matching/organized as outline in RFP**
 - **Volume II (Price Proposal), Separate Packet**
 - **Price Proposal**



Rating Definitions

(Technical Proposals)

- **Exceptional** (Dark Blue) Performance meets contractual requirements and exceeds many to the Government's benefit. The contractual performance of the element or sub-element being assessed was accomplished with few minor problems for which corrective actions taken by the Offeror were highly effective.
- **Very Good** (Purple): Performance meets contractual requirements and exceeds some to the Government's benefit. The contractual performance of the element or sub-element being assessed was accomplished with some minor problems for which corrective actions taken by the Offeror were effective.
- **Satisfactory** (Green): Performance meets contractual requirements. The contractual performance of the element or sub-element being assessed contains some minor problems for which corrective actions taken appear or were satisfactory.



Rating Definitions

(Technical Proposals) Con't

- **Marginal (Yellow):** Performance does meet contractual requirements. The contractual performance of the element or sub-element being assessed reflects a serious problem for which the Offeror has not yet identified corrective actions. The Offeror's proposed actions appear only marginally effective or were not fully implemented.
- **Unsatisfactory (Red):** Performance does not meet most contractual requirements and recovery is not likely in a timely manner. The contractual performance of the element or sub-element being assessed contains serious problem(s) for which the Offeror's corrective actions appear or were ineffective.



Rating Definitions

- No award will be made to an Offeror receiving:
 - a. an unacceptable(red) rating in any evaluation factor.
 - b. an acceptable rating in factor#1 but having more than two marginal(yellow) ratings in the any other factors.



Submitting Questions

- Please provide questions in a written format.
- Answer(s)/Comment(s) to all questions will be provided in the conference minutes, which will be sent to all “parties” who have requested a “bid packet”
- Following lunch, initial response(s) to your questions will be provided, if possible



Questions

- Questions and Answers Are for Information Only



Additional Information

Additional questions should
be submitted to Mr. Alan Link
Phone number 212-264-6707
Fax number 212-264-3013

Deadline for questions is
15 May 02.



Site
Visit

DID YOU SIGN-IN ?!



**MEMORANDUM**

COMM. NO.: 9508.900.03
CLIENT: U.S. Army Corps of Engineers, New York District
PROJECT: Aviation Brigade Vehicle Maintenance, Fort Drum, NY
SUBJECT: Pre-proposal Conference Questions
MEMO BY: Terry Wobken
DATE: 8 May 2002

ATTENTION: Mr. Alan Link
Fax: (212) 264-3013

Mr. Link,

Below are a number of questions I have regarding the Aviation Brigade Vehicle Maintenance project at Fort Drum, NY.

1. Is vehicle information (wheel loads, dimensions, etc.) available for the M984A1 Recovery Truck (HEMTT), or a contact for this information?
http://www.army-technology.com/projects/contractors/vehicles/oshkosh
2. Is vehicle information (wheel loads, dimensions, etc.) available for the M1A2 Abrams tank and the specialty lift vehicle used to transport the tank, or a contact for this information?
http://www.army-technology.com/projects
3. The gas piping size on the plans says "300(MIN)", this is 12' gas pipe which very large; please verify the gas pipe diameters. *All dimensions on drawings are in millimeters. 300mm ≈ 12"φ.*
4. The solicitation does not identify if storm water ponds are required or if the existing drainage ways that will serve as outlets will have the capacity to service the project. No storm water pond or treatment areas are identified in the solicitation. TM 5-820-4, Chapter 2, Para.4-2 requires detention ponds if the outflow from the drainage area is limited by the capacity of the in-place drainage system servicing the project area. However, sustainable design recommends that peak runoff discharge rates from newly developed sites should at least be limited to peak runoff rates prior to development. This usually requires a detention pond with a control structure. Also, some installations have made agreements with surrounding water resources agencies or organizations to provide certain storm water design provisions that may require pond construction because the ultimate receiving water bodies for the installation runoff are beyond the installation boundaries. This is not discussed in the solicitation and we request further discussion and clarification of this item. Sustainable design

Aviation Brigade Vehicle Maintenance Facility
Fort Drum, NY
Page 2



also recommends storm water treatment or best management practices to remove suspended particles, this could also require pond construction. If the existing low area identified in Para. 3.11.2 of Section 01010 satisfies all the above requirements, please verify this fact. *Yes*

5. Is correct to assume that all the utilities and roadways are within the boundaries of Ft. Drum and are under the control of Ft. Drum Public Works? *Yes*

6. Since the fronting road has a County Route 29 designation, are County permits required for construction within the roadway corridor (for driveways, utility crossings, signage, etc.)? Is there a separate public easement for this road? *No*

- 7A. Have the environmental concerns for the site been addressed (is an EBS and EA required and if so, have they been completed)? *B* Is there leachate or seepage from the former landfill area that will be intercepted by utility trenching operations adjacent to the edges of the landfill? *C* What is the status of the landfill documentation (i.e., does it have a formal closure letter, on-going monitoring, remediation, etc.)?

8. Please verify that the utility systems to which the project will be connecting have the necessary in-place capacity to service the project and that upgrades beyond the limits of the plans are not required. *For potable water see 01010-3.12.2. Sanitary sewer, natural gas, and electric have adequate capacity*

9. Are vehicle traffic projections or traffic study information available for the project? *No*

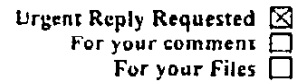
10. The drawings we received (Sheet A-32) indicate a building analysis per 1997 UBC. Have the plans been thoroughly reviewed per Section 01010 Design Requirements, 5.2 Applicable Standards? *Yes, but it is the Contractor's responsibility to comply with applicable standards.*

11. Is it acceptable to produce the drawings for the response in AutoCAD? *Proposal can be any medium; Final design must be microstation*

12. Is it acceptable to locate electrical, telephone, and data systems in the same room? *Yes*

*7A. Environmental concerns have been addressed.
An EBS or EA is not required.
B Past sampling does not indicate that leachate is present
C This information is not needed for this project.*

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Mr. Alan Link
U.S. Corps of Engineers

-2-

Questions for Review
May 8, 2002

9. Drawing C-2: Any special model or height requirements for hydrants near runway?
No.
10. Drawing C-1: Drawing indicates to provide hydrants at 110m spacing but to does not state where. Assuming that it can't be along all water mains (i.e. within airfield). Please clarify extent of hydrant placement on all water mains.
See dwgs C-1 & C-2; Section 01010 - 3.12.2.8 See dwg C-4.
11. Drawing C-8: Are pipe bollards required at every hydrant location?
Yes
12. Specification Section 01010, 6.5.3 Live Loads: Roof live load 3.35kPa (70PSF). Is this snow load, as indicated in paragraph 6.5.4? If so, it implies that there is no allowance for reduction of ground snow load per ASCE 7. Please clarify that roof design live load (snow) is a minimum of 70 PSF.

13. Specification Section 00110, 3.1 Volume I - Technical Proposal: Paragraphs states that all drawings to be 594mm x 841mm (24" x 36"). DGN files provided are E-Size sheets (30" x 42"). Substantial rework of documents would be required to meet this requirement. Will half scale documents of E-Size sheets be accepted?

Use same drawing size as contained in the RFP electronic copy.

12. *No, the roof live load in paragraph 6.5.3 is not the ground snow load in paragraph 6.5.4.*

THE PIKE COMPANY, INC.**REQUEST FOR
INFORMATION**

One Circle Street
TEL. 585.271.5256
MOB. 585.764.4847

Rochester, NY 14607
FAX 585.271.3101
E-MAIL bollm@pikeco.com

Date: May 8, 2002
To: US Army Corps of Engineers, NYD
26 Federal Plaza
New York, NY 10278-0090
Tel: 212-264-4863
Fax: 212-264-3013
Attn: Mr. Alan P. Link, Contract Specialist
From: Mark Bollin *MBollin*
Re: Aviation Brigade Vehicle Maintenance Facility
Fort Drum, New York
Solicitation No. DACA51-02-R-008
Xc: L. Bower, K. Carter, G. Ciminelli, C. Norrish, L. Raffensberger

Please respond to the following questions and/or provide clarifications concerning the referenced project and solicitation:

Section 00110

1. Item 2.4 states the written portion of the proposal shall not exceed 150 pages and item 3.1 states a maximum number of 200 pages. What is the maximum number of pages for written portion of Volume 1 – Technical Proposal? **200**
2. Item 3.3.1 – What is meant by "For each subcontract" in the last sentence? Please clarify the requirement outlined in this sentence. **Should read "subcontractor"**
3. Item 3.6.1 – How can we obtain a copy of SF 254 and SF 255. Should the design team submit the entire SF 254 and 255 except item 10? **www.gsa.gov/webforms**
4. Item 3.9.9.1 – Are the requirements of this section specific to only our Small Business and Small Disadvantaged Business Subcontractors or all subcontractors? **Applies to all subcontractors**

Section 00800

- 5a. Are "other" costs to include travel, lodging, meals, etc for Corps of Engineers and if so provide number attending and location of Partnering Session. How many Partnering Sessions are anticipated? Can we assume that the Partnering Session(s) will be held at Fort Drum, NY? **No** **See 00800-37**
No; but some place close to Ft Drum

Section 01010

6. Item 1.3.1 – What is the duration for the Airfield Safety Meeting and so are all workers required to attend or superintendents and foreman only? **4 hours; All supervisory personnel**
7. Item 2.7 – Are local approvals required in addition to the Government approvals, such as storm water? **Federal and State Governments**
8. Item 3.6.1 – Has it been determined what the buried construction debris consists of and how deep it is? **Yes**
9. Are there any future development plans and if so what are they? Will the infrastructure for the VMF have to be designed for future development?

The DB Contractor will have to design storm water conveyance to include flow from west of County Route 29.

10. Item 3.11.2 – Existing / New Storm Drainage System – Storm runoff flows northeast to an "existing depressed area". Is any detention design or analysis of the depressed area required? **No**
11. Item 3.14 – Should Offeror assume that no additional landscaping is required other than turf seeding? **YES**
12. Item 5.4 indicates security access, hardware and monitory system, however Item 5.8 indicates that there is no security system required. Are there security requirements for the buildings and if so what are they? **per Ft. Drum requirements, No security system is required.**
13. Item 5.9 indicates vapor barriers are required on the walls but is not shown on the drawings in the Storage Buildings. Is vapor barrier required on the exterior walls of the Storage Buildings? **No**
14. How can the Fort Drum Design Standards and the Fort Drum Architectural Design Theme and Installation Guide be obtained? **These will be deleted from RFP**
15. Item 5.12.16.3 – Does the structural steel in the VMF's above concealed areas require finish paint? **Prime paint in concealed areas.**
16. Item 5.14 – Does the Offeror have the option to provide structural steel framing provided by a Metal Building Manufacture for the two VMF's? **Yes**
- Architectural:
17. To what extent, if any, must this project comply with the American with Disabilities Act (ADA)? Are there any primary function spaces they would like to meet ADA? **Section 01010-5.4**
18. Is this project going to be "Bronze certified" with respect to SPRT Version 1.2 or just scored to meet the guidelines? Who will be handling the certification process – assuming it is required? A copy of the document ETL 1110-3-49131 dated Jan 2000 Sustainable Design for Military Facilities is referenced, can we get an electronic copy? Who is responsible to provide detailed description of points received for each category? **Scored by Contractor to meet guidelines.**
19. Is there a specific title sheet border format for the 24" x 36" sheet size for the proposal submission? If so, is an electronic copy available?
- Electrical: **Use border format provided with .dgn file of RFP**
20. Is roadway lighting required? Is parking lot lighting required? Lighting is vaguely mentioned in Volume 1 (01010-2), and Volume 2 has example spec section 16528- Exterior Lighting. There is no lighting indicated on the example drawings, and Volume 2 Electrical Design section is vague about parking lot lighting. **Section 01010-8.2.7**
21. Will security fencing be required for outdoor medium voltage pad mount vacuum interrupter switches? There are (4) locations. There is no electrical code requirement for fencing (because no live wire will be exposed). However, security fencing is normally provided for medium voltage switches for un-authorized personnel safety.
- Structural: **As required to meet design codes**
22. Art. 6.4.4 Code and Specifications on Page 01010-36, specifies the use of UBC-1997 code. Currently, the IBC-2000 Code has superseded the UBC code and is being adopted by the various agencies. Can we use the IBC-2000 Code instead of the UBC-1997 Code? **No**
23. Art. 6.9.2 on Page 01010-39, specifies the minimum depth of foundations to be 1,680 mm. However, the drawings for the various storage buildings show the slabs to be at grade. Do we have to provide a perimeter beam around these slabs at the required depth? Please clarify. **The minimum depth of foundations of 1,680 mm is required on buildings with spread footings.**

Industrial:

24. Is there a design report to accompany the plans and specifications? **No.**
25. Is Welding Equipment for the welding areas part of this contract or owner supplied? **No, Owner supplied.**
What type(s) of welding equipment will be used in the new facilities? We need a list of the welding equipment planned for the weld areas in order to provide a welding area layout with equipment, in accordance with Section 01010, Para 5.12.6.1.
26. Will the parts washers, steam pressure washers, and C-10 test equipment be provided by owner or as part of this contract? What are the utility requirements, other than electrical (defined in Sect 01010, Para 9.17.3.2.f), for these equipment items? Will gas and water service be required for the parts cleaner and steam pressure washer? (Not shown on mechanical drawings M-10 or M-20). What are the sizes and specific functional requirements of these equipment items? Are vent sand drains required? **F Working envelopes?**
27. Are storage racks required? If so, are they provided by the owner, or as part of the contract? **No, furnished by owner.**
28. Is relocating any existing equipment to this facility from other facilities part of the work? **No**

General:

29. Is a two week extension possible for the solicitation due date? **No**
30. Can the electrical drawings files issued with the solicitation be provided in a format such as microstation DGN so that they can be manipulated and redo provide the base line for our design proposal? **On CD + Web site**
31. Are Stanley Consultants allowed to be part of the Design/Build Contractor? **No**

- 26 a: Provided by Owner
- B. Other utility requirements are as listed in other paragraphs in Section 01010.
- C. No special connections for these utilities/equipment are required.
- D. No special requirements
- E. No special requirements
- F. Nothing special.

Dewberry-Goodkind, Inc.

ENGINEERS • PLANNERS • SURVEYORS

15 East 26th Street, 13th Floor • New York, New York 10010-1505
Voice 212-685-0300 Fax 212-685-2340
www.dewberry-goodkind.com



May 7, 2002

Mr. Alan Link
US Army Corps of Engineers, NYD

Re: Solicitation No. DACA51-02-R-0008
Aviation Brigade Vehicle Maintenance Facility
Design/Build
Fort Drum, NY

Dear Mr. Link:

Dewberry-Goodkind, Inc. will be attending the proposal conference on Friday, May 10, 2002. Below is a list of attendees:

Paul Dionisio
David Askinazi

If possible, please make arrangements so that we will be able to take photographs of the site.

As per Amendment No. 1 for the above solicitation, below are a few questions that we have:

1. Could you please clarify the page limit of the proposal. Section 00110.2.4 states 150 pages. Section 00220.3.1 states 200 pages. Both limits exclude different items. Please clarify. **200**
2. Section 00110.3.3.1. Please define a project that has been "executed", i.e., design work begun, construction begun, fully completed? **The means fully completed.**
3. Section 00110.3.5.3. This Subfactor appears to require a list of similar projects valued at over \$20 million to be submitted on "Project Fact Sheets". In addition to this "list", do you require three (3) to five (5) narratives as well, on "Project Fact Sheets", or do you want three (3) to five (5) projects total with narrative included? Please clarify. **One narrative per project fact sheet is required.**
4. What construction is on-going and planned for the base during the period of this contract? **Not required for this project**

Thank you

Keith Itzler, P.E.

M:\proposals\02-296\proposalltr.doc



AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: Dewberry-Goodkind, Inc
EMPLOYEE NAME: Paul T. Dionisio

QUESTION:

1. What information is available for "other utilities" mentioned on Dwg. C-2 in the box describing utilities? Is ground radar or other definitive method required to be used to identify these utilities?
 2. If soft (permeable) areas are converted to hard areas would the additional runoff require a detention or similar water management system?
 3. Does the Base have a 3D model of the existing site surface?
 4. Is there a requirement for perimeter lighting? If so is there a particular type desired?
 5. Is there a requirement for a dry fire suppression system in the vehicle bay areas?
 6. Radiant heating in-slab is required. Insulation is typically provided underneath the radiant-heated floor slab. Is this req'd?
- CONTRACT SECTION REFERENCE _____

REPLY:

1. It is the DB Contractor's responsibility to determine the location of existing utilities using whatever means is appropriate.
2. No
3. Survey information available from the Base is contained in the RFP CD.
4. Exterior lighting is specified in 01010 - 8.2.7
5. No.
6. This feature (insulation) is as required by the DB Engineer's design.

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: Dewberry - Goodkind, Inc.
EMPLOYEE NAME: Paul Dennis

QUESTION:

7. Are RFP backflow preventers required at each building connection?
8. Please provide the existing water pressure at the point of connection.
9. RFP references for design loads and other manuals are different than those in March, 1998 manual of STD. PROC.
10. "...or 1:00..." clarify
11. Retaining wall on Bldg C-6 - What is the height and length?
12. Is Bulk Fuel Storage, Sewage Pump Station, Bldgs 2072, 2088 new or existing?

CONTRACT SECTION REFERENCE Section 1010 #9
Sect 110 p. 5, 3.4.1.5 #10

REPLY:

7. Yes
8. Refer to Section 01010 - 3.12.2
9. RFP design loads are correct.
10. 1:00 is correct
11. Refer to drawing C-6. If additional information is required, DB Contractor shall provide.
12. These buildings and facilities shown on drawing C-1 are existing.

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: TURNER CONSTRUCTION COR

EMPLOYEE NAME: STEVE MCGLONE

QUESTION:

HAVE THE DDC CONTROL SYSTEMS ON THE BASE
BEEN STANDARDIZED TO UTILIZE A PARTICULAR MANUFACTURER?

IF SO, WHO IS THE MANUFACTURER?

CONTRACT SECTION REFERENCE

REPLY:

Refer to Section 01010-7.1.5.20

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: Edward M. Ziegler Co., Inc.
EMPLOYEE NAME: MICHAEL E. ZIEGLER

QUESTION: REF: Dwg A-30 "To match"
Existing Siding - please provide
1) PROFILE _____
2) COLOR by PPG # _____

CONTRACT SECTION REFERENCE Metal Wall panels
Spec Sect. 07413

REPLY:

1. DB Contractor to determine
2. DB Contractor to determine


Constructors, Inc.

TO: Alan Link, ACOE

DATE: May 8, 2002

FROM: Don Middleton, Bell Constructors *Don Middleton*

RE: Fort Drum Aviation Brigade Vehicle Maintenance Facility
(DACA51-02-R-0008) Questions.

1. What will be the largest vehicle exhausted and its required L/S (CFM)?
 2. Please verify the room design temperature for cooling. Specification Section 01010 paragraph 7.1.4.1 calls for 25.6° C and paragraph 9 calls for 23.9° C.
 3. Is the page limit for Technical Proposal 150 pages (section 2.4, page 00110-2) or 200 pages (section 3.1 page 0011-3)?
 4. Section 3.3.1, last sentence, "For each subcontract, whose work is expected to exceed \$5 million, a project fact sheet shall be submitted for all completed projects and on-going projects within the past 5 years...", are these projects in addition to the maximum of 10 projects requested in Section 3.3.1?
 5. Is the 10% Hubzone preference on pricing for Small Business Concerns applicable to this project? *Yes, see Section 700, Clause 52.219-4.*
 6. For Addendum #1, the file "manual.pdf" cannot be opened and is indicated as "damaged".
- 1) *See section 01010 - 1.4 For list of vehicles to be maintained at this facility. (Added by Addendum).*
 - 2) *25.6°C is correct*
 - 3) *200 pages*
 - 4) *CAN BE SAME IF SUBCONTRACTOR WORKED ON SAME PROJECTS*
 - 5) *SEE ABOVE*
 - 6) *ON WEB 4 CD - MANUAL HAS BEEN PROVIDED*
- 1340 Lexington Avenue, Rochester, New York 14606
Phone: 585.277.1054 Fax: 585.458.8229

9352 Wortendyke Road
Batavia N.Y. 14020
Phone: (585) 345-1854
Fax: (585) 345-1037

**Communication
Design
Specialists**

Fax

To: Alan Link **From:** Gregg Stone
Fax: 212-264-3013 **Pages:** 1
Phone: 212-264-6707 **Date:** 05/01/02
Re: Fort Drum Vehicle Maintenance Facility **CC:**
☐ Urgent ☐ For Review ☐ Please Comment ☒ Please Reply ☐ Please Recycle

•Alan

1. Is there a telecommunications / technology scope of work associated with this project?
2. If so will the telecommunications / technology portion of this project included with the bid for the electrical package, or will bids for the telecommunications / technology portion be considered separately from the electrical package?

Sincerely,

Gregg Stone, RCDD
CDS Project Manager

1. See 01010

- 8.2

- 8.3

2. Include with electrical package

PRE-PROPOSAL CONF
MEETING FOR DB TACTICAL EQUIPMENT MAINTENANCE FACILITY
FT DRUM, NEW YORK
05-10-02

NAME	ORGANNIZATION	PHONE	FAX
JACK FINK	Stanley Consultants	563-264-6290	563-264-6658
Dan Lyons	Stanley Consultants	563-264-6509	"
Lynn Pruitt	"	563-264-6311	"
Michael Ziegler	E.M. Ziegler Co	716 681-5120	716 681-3615
CHRIS Rocha	Walsh Construction	(81) 793-9988	(781) 793-9009
DAN BORNEMAN	ATKINS BANHAM	248-669-3275	248-669-1150
KOLAND FIMMOIS	WELLIVER MCGUIRE	607-732-9887	607-732-7989
JIM BAKER	JBS DIRT INC	315-697-7114	315-697-8619
Kim Baker	JBS DIRT INC	315-697-7114	315-697-8619
JOHN WADSWORTH	QUALITY INSPECTION SVCS.	716-853-2611 x2004	716-853-2619
Larry Kershner	Gannett Fleming	717-763-7211 2012	717-763-8150
MAH BOLIN	THE PIKE COMPANY	585-271-5256	585-271-3101
ALIT THAKORE	GANNETT FLEMING	212-967-9833	212-268-6684
CHUCK NORRIS	GANNETT FLEMING	212-967-9833	212-268-6684
PATRICK DELKER	THE PIKE CO	585-271-5256	585-271-3101
WAYNE BURNETT	ATKINS BANHAM	405-478-5253	"
HAMIDOU GARIBI	BORDNER DESIGN	315-253-7301	315-253-7301
Byron Morris	ATKINS BANHAM	442-92-3639	405-478-5253
Xu Marshall	Tug Hill Construction	315-773-4011	315-773-4175
JACK BONDRO	REPUBLIC CONST	518-279-3265	518-279-4260
DAVID ASKINAZI	GOODKIND & O'DEA	585-232-4128	585-232-4129
JAY KYAN	RIFENBURG CONST.	518-279-3265 (137)	518-279-4260
TERRY WOBKEN	RSP ARCHITECTS	612-671-7100	
BOB VAN WIE	STRUCTURAL ASSOC	315-463-0001	315-432-0795
ROGER BURCH	KENALDAN CONST.	716-631-2660	716-631-3456
HAROLD CRING	BETTERERUNG	315-782-0074	
MIKE STEWART	TURNER CONSTRUCTION	518-432-0277	518-432-0279
STEVE MCGLOVE	TURNER CONSTRUCTION	716-853-1900	716-853-1924
SCOTT BOWEN	TURNER CONSTRUCTION	716-853-1900	716-853-1924
Barbie Curley	Edman Anthony	585-467-8884	585-467-8914
DAVID CASSARD	BELL ENGINEERING	585-464-5700	585-328-8377
JEFF OROT	CHA	315-471-3920	315-471-3969
DAN BOY	HEMMI	540-857-3144	540-857-3180
Sandra Sitlin	Michael Baker Corp	716-312-1909	
RAMA KANTHAN	PARSONS BRINCKERHOFF	212-465-5156	212-465-5594
DALE MOELLER	PARSONS BRINCKERHOFF	716-853-1220	716-853-1322
MIKE HAYES	C&S ENGINEERS	315-455-2000	315-455-9667
Scott Weir	Murnane Building Const	315-432-0490	315-432-0655
Virginia MacCallum	Fort-Albert Inc	607-885-9330	315-785-9331
MARK STORCH	"	"	"
J. BELL	BELL CORP	716-277-1000	
J. McCrory	COE	315-772-5151	315-772-5834
Paul Dionisio	GOODKIND & O'DEA	212-685-0900	212-685-2340
Bill Ebersbach	COE	(315) 772-4103	(315) 772-5834
EDWARD SIM	COE	(315) 772-4106	(315) 772-5834

PRE-PROPOSAL CONF
MEETING FOR DB TACTICAL EQUIPMENT MAINTENANCE FACILITY
FT DRUM, NEW YORK
05-10-02

[illegible]

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: The P.H. Company
EMPLOYEE NAME: Mark Bollin

QUESTION:

Referring to SPT B-1, has a
"real estate cost analysis" been
prepared for this project and
is it available?

CONTRACT SECTION REFERENCE 60110 3.4.3.2

REPLY:

WILL PROVIDE INFORMATION IN AMENDMENT

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: TURNER CONSTRUCTION

EMPLOYEE NAME: STEVE MCGLOWE

QUESTION:

HOW MANY COPIES OF THE TECHNICAL PROPOSAL AND
HOW MANY COPIES OF THE COST PROPOSAL ARE
REQUIRED? DOCUMENTS APPEAR TO INDICATE 5
COPIES OF THE COST PROPOSAL BUT IS UNCLEAR
ON THE REQUIREMENTS FOR THE TECHNICAL
PROPOSAL.

CONTRACT SECTION REFERENCE

REPLY:

SEE 00110-3 A 3.1

4 sets 1/2 size PLAN 1 set full size

5 copies of WRITTEN MAT'L

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: THE PIKE COMPANY
EMPLOYEE NAME: MARK BOLLIN

QUESTION:

UNDER WHICH TAB IS THE CONTRACTOR
TO SUBMIT THEIR STAFF ORGANIZATIONAL
CHART AND RESUMES?

CONTRACT SECTION REFERENCE 00110

REPLY:

WILL BE ADDRESSED IN AMEND 2

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: The P. & Co.
EMPLOYEE NAME: Mark Bollin

QUESTION:

Is there any published document
which provides a pictorial presentation
of nearby facilities for architectural
style? or may pictures be
taken today for reference?

CONTRACT SECTION REFERENCE 01010-20

REPLY:

ONLY CRITERIA REQUIRED TO FOLLOW IS LISTED
S.1.3 SECTION 01010

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: THE PIKE COMPANY
EMPLOYEE NAME: MARK BOULIN

QUESTION:

Does the "prescriptive design"
package capture SPRT rating
points and, if so, which ones?

Explanation - without significant investigation,
there may be site credits that have
already been excluded or included.

CONTRACT SECTION REFERENCE 00110 / 3.4.3.2

REPLY:

YES - WILL PROVIDE IN AMENDMENT

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: Parsons Brinckerhoff
EMPLOYEE NAME: RAMA KANTHAN

QUESTION:

1. Tech Proposal 150 pages or 200 pages?
2. Sustainable design ratings - Should we have to include the ratings for different systems in the proposal?
3. Do we need Arch Floor Plans, Elevations, Sections for all the buildings? Can they be typical?
4. What is the percent of design drawings is anticipated for the proposal for Mech and Elec?
5. Will there be a time extension for the proposal due date?

CONTRACT SECTION REFERENCE

REPLY:

- 1) 200 pages
- 2) YES
- 3) YES - CAN BE TYPICAL IF THAT IS THE DESIGN YOU ARE PROPOSING
- 4) WILL BE ANSWERED IN AMENDMENT
- 5) NO

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: TURNER CONSTRUCTION

EMPLOYEE NAME: STEVE McGLONE

QUESTION:

IS THERE A DIFFERENCE BETWEEN
THE DRAWING FILES ~~IN~~ UNDER
PLAN FOLDER AND THE MICRO STATION FILES.

CONFIRM THERE ARE 36 DRAWINGS

CONTRACT SECTION REFERENCE _____

REPLY:

1) NO

2) YES - 36 DRAWINGS IS CONFIRMED

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: BETTE & CRING
EMPLOYEE NAME: HAROLD CRING

QUESTION: ① WHO PROVIDES BUILDERS
RISK & OWNER PROTECTION FOR
THE PROJECT

② HOW DOES FAR 52.219-4
NOTICE OF PRICE EVALUATION HUBZONE CONCERN
AFFECT THE PROCESS
CONTRACT SECTION REFERENCE

REPLY:

1) SEE FAR 52.236-7 IN SECTION 00700
"PERMITS & RESPONSIBILITIES"
2) GOV'T WILL FOLLOW FAR 52.219-4 CLAUSE

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: _____

EMPLOYEE NAME: _____

QUESTION:

IS THIS PROJECT IN "SOFT" OR
HARD METRIC

CONTRACT SECTION REFERENCE _____

REPLY:

- HARD METRIC
AMEND WILL CORRECT 01010 pg 4

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: TURNER CONSTRUCTION COMPANY

EMPLOYEE NAME: STEVE McCLONE

QUESTION:

Paragraph 2.0 "Designer of Record" of SECTION 01012
OF THE SPECIFICATIONS REQUIRES THE ARCHITECT AND
ENGINEERS OF RECORD FOR THIS PROJECT TO BE
LICENSED IN THE NEW YORK STATE OF NEW YORK.

WE BELIEVE -

THIS IS IN CONFLICT WITH PARAGRAPH 2.3.1 (FAR
52. 236 - 25) "REQUIREMENTS FOR REGISTRATION OF
DESIGNERS" OF SECTION 00110 OF THE SPECIFICATIONS.

PLEASE CLARIFY THAT THE LATER IS CORRECT.

CONTRACT SECTION REFERENCE

Paragraph 2.0 - SECTION 01012

(VS)

Paragraph 2.3.1 - SECTION 00110.

REPLY:

WILL CORRECT IN AMENDMENT
SECTION 00110 # 2.3.1 IS CORRECT NOT

WATER SYSTEM DRAWINGS MUST BE STAMPED
By A NEW YORK STATE PE.

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: The Pike Co
EMPLOYEE NAME: Mark Ballin

QUESTION: Does the \$28 million budget include
phones 1 thru 5?

CONTRACT SECTION REFERENCE _____

REPLY: YES

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: THE PIKE COMPANY
EMPLOYEE NAME: MARK BOLLIN

QUESTION:

CAN THE SITE WORK AND UNDERGROUND
UTILITY DESIGN BE COMPLETED IN
LESS THAN THE SPECIFIED NUMBER OF
DESIGN SUBMITTALS ?

CONTRACT SECTION REFERENCE C

REPLY:

NO - SUBMITTALS REQUIRED AS STATED IN THE
RFP

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: THE PIKE COMPANY
EMPLOYEE NAME: MARK BOLLIN

QUESTION:

DOES BOTH THE CONTRACTOR AND A/E FIRM
HAVE TO SUBMIT THE SF 254 AND SF 255
AND DO ALL ASPECTS OF BOTH FORMS NEED
TO BE FILLED OUT?

CONTRACT SECTION REFERENCE 00110

REPLY:

SEE 00110 ¶ 3.6.1 - ONLY DESIGN FIRM
& ALL INFORMATION REQUIRED ON FORM MUST
BE FILLED OUT.

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: THE PIKE COMPANY
EMPLOYEE NAME: MARK BOCCIN

QUESTION:

CAN THE LIST OF PROJECTS SUBMITTED
UNDER SECTION 00110 ITEM 3.3.1 BE THE
SAME AS THOSE SUBMITTED UNDER ITEM 3.5.3?

CONTRACT SECTION REFERENCE 00110

REPLY:

YES

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: THE PIKE COMPANY
EMPLOYEE NAME: MARK BOGLIN

QUESTION:

ARE THE COSTS FOR DESIGN OF
THE OPTIONS TO BE INCLUDED IN
BID ITEM NO. 1 OR THE INDIVIDUAL
OPTION BID ITEM?

CONTRACT SECTION REFERENCE 00110

REPLY:

SEE SECTION 00110 PG 106-108
DESIGN & CONSTRUCTION COST SHOULD BE IN
EACH BID ITEM

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: BELL ENGINEERING

EMPLOYEE NAME: DAVID P. CASSARA

QUESTION:

(1) 200 pages include DWGS. ?

(2) Explain in more detail - (Reasons and impact for Item # 0007 - Moving BLDGS closer to RT 29. Option)

CONTRACT SECTION REFERENCE

REPLY:

1) 200 pages - EXCLUDING DRAWINGS
SEE SPEC 0010 & 3.1

2) BOU'E WANTS OPTION TO MOVE BLDG'S
CLOSER TO RT 29 - TO FACILITATE BETTER
FUTURE ACCESS FOR SOLDIERS - AND
TO SAVE MONEY

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: TURNER CONSTRUCTION CO.

EMPLOYEE NAME: STEVE MCGLONE

QUESTION:

IS THERE ANY HUB ZONE PREFERENCE GIVEN DURING
THE PROPOSAL EVALUATION PROCESS?

IF SO, HOW DOES IT APPLY TO AN UNRESTRICTED BID?

CONTRACT SECTION REFERENCE _____

REPLY:

1) A PRICE EVALUATION PREFERENCE

2) SEE FAR CLAUSE 52-219-4 IN SECTION
00700

DACA51-02-R-0008

5/10/02

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: BETTE & CRING LLC
EMPLOYEE NAME: HAROLD CRING

QUESTION: CAN WE HAVE A ONE
WEEK MINIMUM BID EXTENSION

CONTRACT SECTION REFERENCE _____

REPLY: NO

DACA51-02-R-0008

AVIATION BRIGADE VEHICLE MAINTENANCE FACILITY

COMPANY NAME: TURNER CONSTRUCTION COMPANY
EMPLOYEE NAME: STEVE MCGLONE

QUESTION:

WILL THERE BE AN EXTENSION OF THE PROPOSAL
DUE DATE FROM MAY 30TH?

CONTRACT SECTION REFERENCE _____

REPLY:

NO

Clarifications
Aviation Brigade Vehicle Maintenance Facility
Fort Drum, NY

Project No. 150290108
RFP DACA 51-02-R-0008

Atkins Benham Constructors

#	SUBJECT	DISCIPLINE	FROM	DATE ENTERED	GOVERNMENT RESPONSE
005	Are we to provide boilers capable of heating the glycol solution directly as indicated in 15569, Paragraph 2.15.1, (and elsewhere) or Are we to provide hot water-to-glycol heat exchangers-that are not mentioned anywhere If we are to provide a glycol heating boiler, please advise us of a manufacturer who makes such a unit.	Mechanical	K. Engelbrecht	07-May-02	Direct heating of glycol solution by boilers is required.
006	What is the width of the perimeter road?	Civil	Busma	07-May-02	7600; see Dwg C-5
007	Is defension required for additional run off generated	Civil	Busma	07-May-02	
008	Does the culvert under Co. Rd. 29 need to be sized to accomodate future growth to the west?	Civil	Busma	07-May-02	Yes, See 01010-3-11.2
009	Where do we obtain a copy of the manual for "Sustainable Design For Military Facilities?"	Arch	Reynolds	07-May-02	www.hqda.army.mil/acsimwcb/FB/links SSD.htm
010	Where do we obtain a copy of the "Sustainable Design Rating Tool?"	Arch	Reynolds	07-May-02	SAME AS ABOVE
011	Where do we obtain the CD of the electronic drawings referenced in the RFP sec.01010 2.5?	Arch	Reynolds	07-May-02	ON CD & WEB PAGE
012	Are color boards for this submittal?	Arch	Reynolds	07-May-02	NOT REQ - PLEASE RE-READ 01010 5.4
013	Are ADA requirements required? Sec. 01010, 5.4	Arch	Reynolds	07-May-02	See 01010-5.8 for security lighting.
014	What is the extent of the security requirements beyond gates, doors and mechanical locks? Sec 01010, 5.8	Arch	Reynolds	07-May-02	REF TO DOCUMENT WILL BE DERIVED - INFO REQ FROM GUIDE PROVIDED IN SPECIFICATIONS
015	Where do we obtain a copy of the Ft. Drum Installation Guide?	General	Ross	07-May-02	
016	Where do we obtain a copy of the design Compatibility Standards for Ft. Drum?	General	Ross	07-May-02	

Atkins Benham Constructors
 Clarifications
 Aviation Brigade Vehicle Maintenance Facility
 Fort Drum, NY

Project No. 150290108
 RFP DACA 51-02-R-0008

#	SUBJECT	DISCIPLINE	FROM	DATE ENTERED	GOVERNMENT RESPONSE
001	Sheet C1 refers to terminating copper and fiber cable per spec 1010, - can't find a copy of this. a. Item #6 on bid document asks for price on outside plant duct only, does not mention cable b. Are we to price the cable? (Copper and fiber) in addition to the duct bank	Communications	C. Scharrer	07-May-02	See 01010 - 8.2.2.
002	Base bid looks to be approx 2000 meters of duct run a. 4 duct - (1 with 4 innerduct) - 129mm duct b. 195 meters - 2 duct - 53mm duct c. 7 manholes - 1830mm square - by 2400mm deep d. 2 handholes -	Communications	C. Scharrer	07-May-02	DB Contractor to determine quantities required.
003	3. Bid Opt 4 looks to be approx 1300 meters of duct run a. 4 duct - (1 with 4 innerduct) - 129mm duct b. 9 manholes - 1830mm square - by 2400mm deep	Communications	C. Scharrer	07-May-02	DB Contractor to determine quantities required.
004	Are we to provide forced draft packaged, cast iron sectional boilers as specified in 01010, 7.1.5.1, Page 48 or Are we to provide modular, condensing type boilers with separate air intake, exhaust, and condensate drain as specified in 15569, Paragraph 2.1 or Are we to provide field erected boilers indicated in 15569, Paragraph 2.3 & 3.1	Mechanical	K. Engelbrecht	07-May-02	Modular, condensing type boilers per 15569 - 2.1 are required.

Ross, Bob

From: Montanini, Pierluigi
Sent: Wednesday, May 08, 2002 4:39 PM
To: Ross, Bob
Subject: FW: Ft. Drum RFP

did you get this one ?

-----Original Message-----

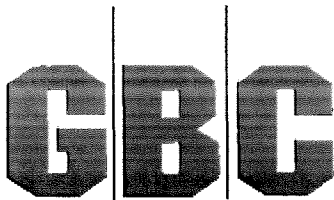
From: Reynolds, Jim
Sent: Tuesday, April 30, 2002 4:29 PM
To: Montanini, Pierluigi
Cc: Morris, Byron
Subject: Ft. Drum RFP

Pierluigi,

Following are some initial questions for the owner to help in our response.

1. Can the drawings be obtained on a CD? - ALREADY ON CD PROVIDED- ALSO POSTED ON WEB
2. Is there a program to review that defines the project scope and area requirements? NO - REQUIREMENTS FOR SOLICITATION
3. Can vehicle/equipment information (sizes and weights) be obtained to verify bay sizes, circulation, aprons, parking, etc.? NO - INFO IN CONTRACT IS MINIMUM REQUIREMENTS
4. Does the contractor have flexibility on the interior finishes and exterior construction as long as it meets the general aesthetic intent? - CAN deviate AS STATED IN SOLICITATION
5. Can photos of surrounding adjacent buildings be obtained? - SITE PHOTO'S ARE OK - PHOTO'S OF OTHER AREA'S REQUIRE PERMISSION OF FTDRUM

Jim Reynolds, RA
(405) 478-5353 x1207



**GENERAL BUILDING CONTRACTORS
OF NEW YORK STATE, INC.**

FAX MEMORANDUM

TO: Alan Link, U.S. Army Corps of Engineers

FROM: Joseph P. Hogan, CDT *JPH*

DATE: May 9, 2002

SUBJECT: **Solicitation #DACA51-02-R-008 – Aviation Brigade Vehicle Maintenance Facility at Fort Drum – Design/Build**

It was a pleasure speaking with you yesterday about our concerns over the fact that the above-referenced project is being procured in a 1 Step design/build procurement process. As noted, the General Building Contractors of New York State (GBC) is the New York State Building Chapter of the Associated General Contractors of America (AGC). We are an association of over 190 general contractors and construction managers who perform the lion's share of commercial, industrial and institutional building construction throughout New York State.

As discussed, we are concerned that, given the estimated size of this project (est. \$28 million), a 1 step procurement process is not appropriate. Contractors and, more specifically, designers will be asked to invest a great deal of time and treasure. On a job of this magnitude, that is not equitable treatment of the marketplace nor is it in keeping with standards of good industry practice. We have been given some indication that this is a 1 step procurement because this is a "prescriptive solicitation" in that a good deal of the design is already very clear. If that is the case, the criteria for selection are too heavily weighted toward the design. Statements such as the one in Article 4.4 of Section 00110, "All evaluation factors, other than cost or price, when combined, are significantly more important than cost or price," are incongruous with the notion of a prescriptive solicitation.

We ask that you reconsider the procurement methodology here.

Thank you for your consideration in this matter. If you have any questions, please feel free to call.

JPH:pam

cc: Officers, Counsel
GBC Member Planholders
Barbara Rodriguez – NYSAIA
Jim Krause – AGC of America

The procurement methodology has been reviewed and it is the Contracting Officer's decision that the use of the one step design build procedure is proper. This method has been used successfully on other projects of equivalent and greater magnitude.

Address correspondence to:

✓ 6 AIRLINE DRIVE • ALBANY, NEW YORK 12205 • PHONE (518) 869-2207 • FAX (518) 869-0846

METRO NYC OFFICE: 317 MADISON AVE., SUITE 703, NY, NY 10017 • PHONE 212-983-5898 • FAX 212-818-1899

The New York State Building Chapter of The Associated General Contractors of America





KENAI DAN CONSTRUCTION CORP. - GENERAL CONTRACTORS

430 LAWRENCE BELL, SUITE #16, WILLIAMSVILLE, N.Y., U.S.A. 14221
TEL: (716) 631-2660 FAX: (716) 631-3456 www.kenaidan.com

May 8, 2002

Questions regarding the Aviation Brigade Vehicle Maintenance Facility Project at Ft Drum, NY

- The current procurement methodology will not be changed.*
1. This project is being bid using a one step process, which places a significant risk on the bidders. The quantity of information required for the one step proposal will require an expense of tens of thousands of dollars for design work. This risk would more acceptable if the design information was required after we had successfully gone through a pre-qualification process. Would the USACE consider one of the following:
 - a. Turn this into a two step process: Step One, Pre-Qualification to develop a short list of bidders and Step Two, Review Design and Cost Proposals from shortlisted bidders.
 - Or
 - b. Keep the current one-step process but significantly reduce the requirements for producing a design during the proposal phase.
 2. No performance criteria were presented in the proposal documents. The only basis of design was the plans given. Are we to assume that the plans given will satisfy all of the end user's requirements?
 3. The price ceiling is given as \$28,080,000. Are these funds currently committed to this project? And if the cost of the project goes over the ceiling figure will the project still go ahead?
 4. What is the purpose of Option 5? A significant amount of design work is required just to move the facility a few meters in one direction. Yet it is no apparent the move will affect the construction cost. The only cost increase will be the additional design cost required. Rather than require a design for Option 5 in the proposal stage couldn't this Option be handled as a post bid change order?
 5. Once the project is under construction will the prime contractor be responsible for further engineering work, either in construction administration or design of change order work?
 6. The time limit for completing this project is 931 days. This includes the design process and the Corps design approval process. How many weeks will the Corps review/approval process take at each stage (30%, 60%, 95% and 100%)? Will the Corps be obligated to meet the prime contractor's project schedule?

ANS:

- 1) THE CURRENT PROCUREMENT METHODOLOGY WILL NOT BE CHANGED
- 2) RFP CONSISTS OF PLANS AND SPECIFICATION
- 3) FUNDS ARE AUTHORIZED & PROGRAMMED FOR THIS PROJECT
 a) NOT KNOWN AT THIS TIME
- 4) FOR RFP PREPARATION THE GOV DOES NOT SEE THIS AS SIGNIFICATION ADDITIONAL DESIGN
- 5) DESIGN BUILD PROJECT
- 6) SEE SECTION 01012 & 7

CIVIL, COMMERCIAL AND INDUSTRIAL CONSTRUCTION

Link, Alan P NAN02

From: MKangCHO@aol.com
Sent: Tuesday, April 23, 2002 8:41 PM
To: Link, Alan P
Subject: Vehicle Maintenance Facility

Dear Mr. Link:

We are interested in bidding on the above referenced solicitation. We are an 8(a), SDB and Hubzone certified company. We have the following question:

1) Hubzone and SDB certified companies get an additional 10% price evaluation per each certification on their proposals. Is this the case for this solicitation?

Thank you for your assistance,
Michelle Cho
Far East Construction
920-217-2820

See clause 52.219-4,
Notice of Price Evaluation
Preference for Hubzone
small business concerns,
contained in Section 700
of the solicitation.

NAAs: 233320

**BDA BEARDSLEY DESIGN
ASSOCIATES**

Architecture, Engineering & Landscape Architecture, P.C.

FAX COVER SHEETUrgent Reply Requested ☐
For your comment ☐
For your Files ☐**PROJECT: AVIATION BRIGADE VEHICLE MAINTENANCE
FACILITY, FORT DRUM, NY DACA51-02-R-008****BDA#: 50200.016****DATE: May 6, 2002****TO: United States Corps of Engineers
New York District
26 Federal Pl.
New York, NY 10278****PHONE:****ATTN: Mr. Alan Link****FAX: 212-264-3013****FROM: Hamilton G. Garnsey, P.E.****cc:****NO. OF PAGES THAT FOLLOW:****If you do not receive all sheets indicated, please call immediately.****MESSAGE:**

Dear Sir:

In preparation for the Pre-Proposal Conference of May 10, 2002, we would appreciate response to the following questions:

1. Can the 1391 for the project be made available? We are interested in area limitations for the various facilities. *NO - AREA LIMITATIONS PER SOLICITATION*
2. What is the anticipated time duration from receipt of design-build proposals to award of contract? *Award must be made by 30 September 2002.*

Thank you for your assistance.

Sincerely yours,



Hamilton G. Garnsey, P.E.

HGG/bbw

05/16/2002

08:32

USACE, NYD CENAN-CT → 916315858593

NO. 318

0002

15852713101

MAY 15 2002 3:09PM

THE PIKE COMPANY

NO. 1837 1

THE PIKE COMPANY, INC.**REQUEST FOR
INFORMATION**

One Circle Street
TEL. 585.271.5256
MOB. 585.764.4847

Rochester, NY 14607
FAX 585.271.3101
E-MAIL bollm@pikeco.com

Date: May 15, 2002
To: US Army Corps of Engineers, NYD
26 Federal Plaza
New York, NY 10278-0090
Tel: 212-264-4863
Fax: 212-264-3013
Attn: Mr. Alan P. Link, Contract Specialist
From: Mark Bollin *[Signature]*
Re: Aviation Brigade Vehicle Maintenance Facility
Fort Drum, New York
Solicitation No. DACA51-02-R-008
Xc: L. Bower, K. Carter, G. Ciminelli, C. Norrish, L. Raffensberger

Please respond to the following questions and/or provide clarifications concerning the referenced project and solicitation:

General

1. Are existing electrical and water utilities available at the site for use of temporary construction facilities and if so where is it located? Is the Offeror responsible for the usage charges? *No utilities are available at existing site.*

Section 00110 Item 3.9

2. Will there be price evaluation adjustments for Small Disadvantage Business Concerns in particular HUBZone Small Business Concerns?
3. We cannot find DFAR Clause 252.219-7003 in the FAR website. Can this be provided to us?
4. Can a copy of SF 294 and SF 295 be provided to us?

2. THE ONLY PRICE PREFERENCE IS FOR HUBZONE SMALL BUSINESS CONCERNS. THAT PREFERENCE, FOR PRICE EVALUATION PURPOSES ONLY, IS 10% OVER LARGE BUSINESSES ONLY.

3. IT IS IN THE DFARS, NOT FAR WEBSITE, SPELLED OUT IN THE SOLICITATION

4. GO TO WEBSITE "WWW.QSA.GOV"

Request for Information

Aviation Brigade Vehicle Maintenance Facility
Fort Drum, New York

May 15, 2002

Turner/CHA/HMM

General

1. The USACE New York District Manual of Standard Procedures for Planning and Design, provided in the issued CD of documents, is dated March 1990. It contains no guidance on current CAD requirements and standards. Please clarify.

Refer to Section 1012

2. A question of terminology... each building has 2-3 large areas which say "Wheeled Vehicle Bays." A number of the electrical and mechanical requirements are defined as "per bay" so the question comes up, what is a bay?

- a. Is it a space for one vehicle? (i.e. 1/2 of a space sharing a double door to the outside)
- b. Is it a space for two vehicles? (i.e. the space behind one double door?)
- c. Is it a space for four vehicles? (i.e. the space with two double doors, one on each side of the building?)

See response below.

3. What are the professional liability insurance requirements?
ONLY INSURANCE REQUIREMENTS STATED IN SECTION 00800.
4. How many employees will work in the maintenance facility and what is the maximum number of employees per shift? *SEE AMENDMENT 2*

Civil

1. Regarding specification 01010, section 3.12.2.6, it appears that there is not enough information from the drawings or specifications to determine whether adequate fire flow will be available at the VMF. Please provide the following information:

- a. Location of existing storage tank in relationship to existing and proposed water system. *Within 200m of connection to Exist. on Dwg C-2*
- b. Approximate ground elevation at the existing storage tank. *206M*
- c. Have any fire flow test been done at the proposed connection points? *NO.*

2. Drawing C-1 refers to a former sanitary landfill. If ductile iron is the preferred piping material, should the pipe be encased in polyethylene as the soils may be corrosive? *See Section 02510-2.1.4.*

3. What is the preferred casing pipe material for jack and bores?

See Section 02510-3.1-2.5

Page 1 of 5

2. Section 01010-page 2, project description indicates 88 work bays. A typical structural bay (9800mm) has 4 work bays. A narrow structural bay (4900mm) has 2 work bays. "Wheeled Vehicle Bays" is a collective term for work bays. Note: A "work bay" and "repair bay" are synonymous.

05/16/2002 08:32 USACE, NYD CENAN-CT → 916315858593
05/15/2002 18:01 FAX 518 432 0279 TURNER CONSTRUCTION

NO. 318
0006

Request for Information

Aviation Brigade Vehicle Maintenance Facility
Fort Drum, New York

May 15, 2002

Turner/CHA/HSMM

4. Will New York State Department of Health approval for potable water improvements be required for this project? **Yes**
5. What size and slope is the existing sanitary sewer that the force main connects into? **10" ; Minimum slope is 0.28 m/100m**
6. Are there any vehicle washing facilities? **No**
7. Are casing pipes required for road crossings installed by trenchless methods? **Contractor's option; Installation procedures must not result in damage to roads.**

Architectural

1. 01010 - pg. 4, para 2.4 states: "This project will be designed in "soft" metric". Other language in the RFP includes "hard" metric. The preproposal conference discussion included a requirement for "hard" metric. Please clarify.
Design shall be hard metric
2. Two sentences in 01010 - pg 24, para 5.9.1:
"The space between the suspended ceiling and the insulation/framework shall be provided to house HVAC ductwork and sprinkler lines, etc."

"Insulation hangers and ceiling hangers shall have completely separate suspension systems from each other."

Does this mean there is an attic space that is below the insulation and conditioned, or at least ventilated? **Yes**

3. 01010 - pg 24, Table 1, refers to a "Projection Room". Cannot find on the plans.
There are no projection rooms.
4. 01010 - pg 27, para 5.12.5, refers to "Canopies at entrance and exit doors shall be required to protect pedestrians from snow and ice sliding off from doors located under the sloped roof locations." The plans do not indicate overhangs, and the elevations do not show canopies. Verify requirement.

Any accept variation from the plans as drawn shall comply with this requirement. Section 01010-5.1.1 indicates minor deviations are allowed as long as in conformance with all requirements.

05/16/2002

08:32

USACE, NYD CENAN-CT → 916315858593

NO. 318

0007

05/15/2002 16:01 FAX 518 432 0279

TURNER CONSTRUCTION

1004

Request for Information

Aviation Brigade Vehicle Maintenance Facility
Fort Drum, New York

May 15, 2002

Turner/CHA/HSM

5. 01010 - pg 28, para 5.12.10.1, second sentence, "Fire rated exterior doors, when required to protect against wall openings within fire distance limitations, shall meet R-6 insulation performance requirements of non-rated doors in all areas." The first sentence says, "Exterior door assemblies shall be as indicated in specification Section 08110 STEEL DOORS AND FRAMES." The specification requires a U of 0.48 or R-2. Clarify the required thermal performance of exterior doors. *Exterior steel doors shall typically be U=0.09, R=11 (min)*
6. 01010 - pg 30, para 5.12.14.1 refers to "TCA (Tile Council of America) Handbook, 1994. Verify that 2002 edition is not required." *the latest edition is required*
7. There are no drawings of the guardhouse. The guardhouse, as described in 01010 - pg 34, para 5.16, is not a premanufactured catalog item. Is the design left to the proposer? *Yes, per the indicated requirements*
8. Drawing A31 shows a "concrete encased oil and lubricant supply trench w/ heavy duty grating cover". Where does this occur on the overall floor plans and what is the extent? *Refer to Drops A-10 and A-20.*

Structural

1. No questions at this time.

HVAC and Plumbing

1. Section 01010, Paragraph 7.1.5.5 Exhaust Systems states that 2 vehicle exhaust fans are to be provided per wheeled vehicle bay. Drawings M-10 and M-20 show "Wheeled Vehicle Bays" and "Repair Bays" are these indicating the same space?
B For example, Drawing M-10 shows Room 101 having 7 wheeled vehicle bays of which half are repair bays. Two fans per bay results in 14 exhaust vehicle exhaust fans provided in Room 101; i.e. one fan per exhaust drop. Is this the proper understanding of paragraph 7.1.5.5? **C** Or does the 50% diversity sizing limitation and the 2 vehicle exhaust fan requirement mean that there are to be installed 2 exhaust fans per vehicle exhaust drop ducted in parallel providing two stage exhaust 50% and 100% L/s per drop? Please clarify. *See response on page 1 of 5, General #2.*
2. Section 01010, Paragraph 7.1.5.5 Minimum performance of each vehicle exhaust system drop is specified as 400 L/s per drop. Maximum performance is required to be sized for 110 percent of the idle load of the largest engine in facility. What is the largest vehicle to be serviced in this facility and its associated idle scfm?
A list of the vehicles to be serviced by this

Page 3 of 5

*Facility will be provided by addendum.**1A. Yes**1B. No**1C. No*

5/16/2002

08:32

USACE, NYD CENAN-CT → 916315858593

NO. 31B

0010

716 458 8229

May-15-02 03:09P Bell Engineering

716 458 8229

P. 01

**Constructors, Inc.**

TO: Alan Link, ACOE
DATE: May 15, 2002
FROM: Don Middleton, Bell Constructors *Don Middleton*
RE: Fort Drum Aviation Brigade Vehicle Maintenance Facility
(DACA51-02-R-0008) Questions.

1. Does being a Hubzone Small Business Prime Contractor supersede all other evaluation requirements detailed in the Best Value Criteria One Step Solicitation?
NO, IT IS JUST 10% PREFERENCE ON PRICE ONLY
 2. Is a Large Business Prime Contractor with Hubzone Small Business Subcontractor participation equivalent to a Hubzone Small Business Prime Contractor or will the Large Business's bid be increased by 10% as indicated?
LARGE BUSINESS RULES APPLY
- Refer to: Specification 01010 Section 7.1.5.8 page 52 - Parallel Fan Powered Single Duct Terminal Units.

"Each space served by a variable air volume system shall be provided with an individual terminal unit, except corridors may be served by units serving the adjacent spaces."

1. Is the intent of the above referenced Specification to have one terminal unit for all individual spaces including the small (8 sq. M) offices or would it be acceptable to group some offices together on one terminal unit?
2. Would non-fan powered terminal units meet the intent of the above referenced Specification in lieu of parallel fan power single duct terminal units?
No. Provide Fan powered boxes

- 1a. Yes. Provide one VAV box for each space
- 1b. No; grouping is not acceptable

1340 Lexington Avenue, Rochester, New York 14606
Phone: 585.277.1054 Fax: 585.458.8229

MAY 14, 2002 2:46PM

15352713101

THE PIKE COMPANY

NO. 1743 3. 1

Orig. to Lt. 5/14/02. ad

The Pike Company

May 14, 2002

Mr. Alan P. Link, Contract Specialist
 US Army Corps of Engineers, NYD
 26 Federal Plaza
 New York, NY 10278-0090

Re: Aviation Brigade Vehicle Maintenance Facility
 Fort Drum, New York
 Solicitation No. DACA51-02-R-008

Gentleman,

We believe that we are writing on behalf of all potential Offerors as we formally request that an extension for the proposal due date be reconsidered for the referenced project. The basis for our request is as follows:

- 1) • "dgn" files were not immediately available with the site announcement. In fact they were at least one week late.
- 2) • Responses to unanswered questions will not be issued for one week. Written documentation for questions answered verbally will not be issued for one week.
- 3) • Prior to the questions, the procurement team had not considered whether any of the prescriptive design provided points for the "sprt" sustainable design rating tool. The achievement of "bronze rating" is a high priority requiring 25 to 34 points. If there are points available through the prescriptive documents, then the design teams do not have to over design to achieve the required rating level. Therefore, the achievement of the target budget is more likely.
- 4) • The current schedule provides minimum time to prepare both the technical and priced proposal. Cost saving design alternatives can not be considered impacting the price proposal for all teams and the "best value" procurement procedure will not be realized.

With a one to two week extension, The Pike Company and Gannett Fleming Design Build Team can assure the "best value" process will be accomplished.

Thank you in advance for your reconsideration.

Sincerely,



Mark F. Bollin
 Project Director

- 1) GOV'T IS NOT OBLIGATED TO PROVIDE DGN FILES. THEY WERE PROVIDED ON SOLICITATION CD
- 2) VERBAL RESPONSES PROVIDED FOR MORE THEN 70% OF QUESTIONS. NO QUESTIONS WERE OF SUCH SUBSTANCE TO EFFECT QUALITY OR PRICE OF PROPOSAL
- 3) SUSTAINABLE DESIGN REPORT FROM RFP WILL BE PROVIDED IN AMEND 2

General Contracting
 Construction Management
 Specialty Contracting
 Facility Services
 Program Management

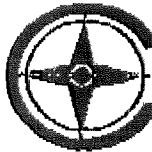
The Pike Company Inc.
 One Circle Street, Rochester, NY 14607
 Phone: (585) 271-5256 / Fax: (585) 271-3101
 800-264-PIKE
 E-mail: pike@pikeco.com / Online: www.pikeco.com

Branch Offices:
 Albany (518) 371-5900
 140 Clifton Corporate Parkway
 PO Box 435, Clifton Park, NY 12065
 Buffalo (716) 633-3133
 5500 Main Street, Buffalo, NY 14221

4) 45 DAYS HAS BEEN GIVEN FOR THIS SOLICITATION. GOV'T FEELS THIS IS MORE THEN ENOUGH TIME TO PREPARE PROPOSAL

Phone: 315-451-3722
Fax: 315-451-3655

Fax



Northland ASSOCIATES INC.
GENERAL CONTRACTORS

To: Alan Link -- US Army Corps of Engineers **From:** Jerry Marlow

Fax: 212-264-3013

Date: May 17 2002

Phone: 212-264-6707

Pages: 1

Re: Aviation Brigade Vehicle Maintenance **CC:** File

Facility, Fort Drum, NY DACA5102R0008

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

COMMENTS: Mr. Link: We are a general contractor preparing a design build proposal for the above project. We hereby request a postponement of the proposal bid date that is currently 5-30-2002. We would like to see the proposal bid date extended two weeks, this would allow a greater percentage of local subcontractors and suppliers to become involved with this project. Any consideration of this request would be greatly appreciated. Thank you for your time.

*NO EXTENSION AT
THIS TIME*

Jerry Marlow, Estimator

Northland Associates, Inc.

P-315-451-3722

F-315-451-3655